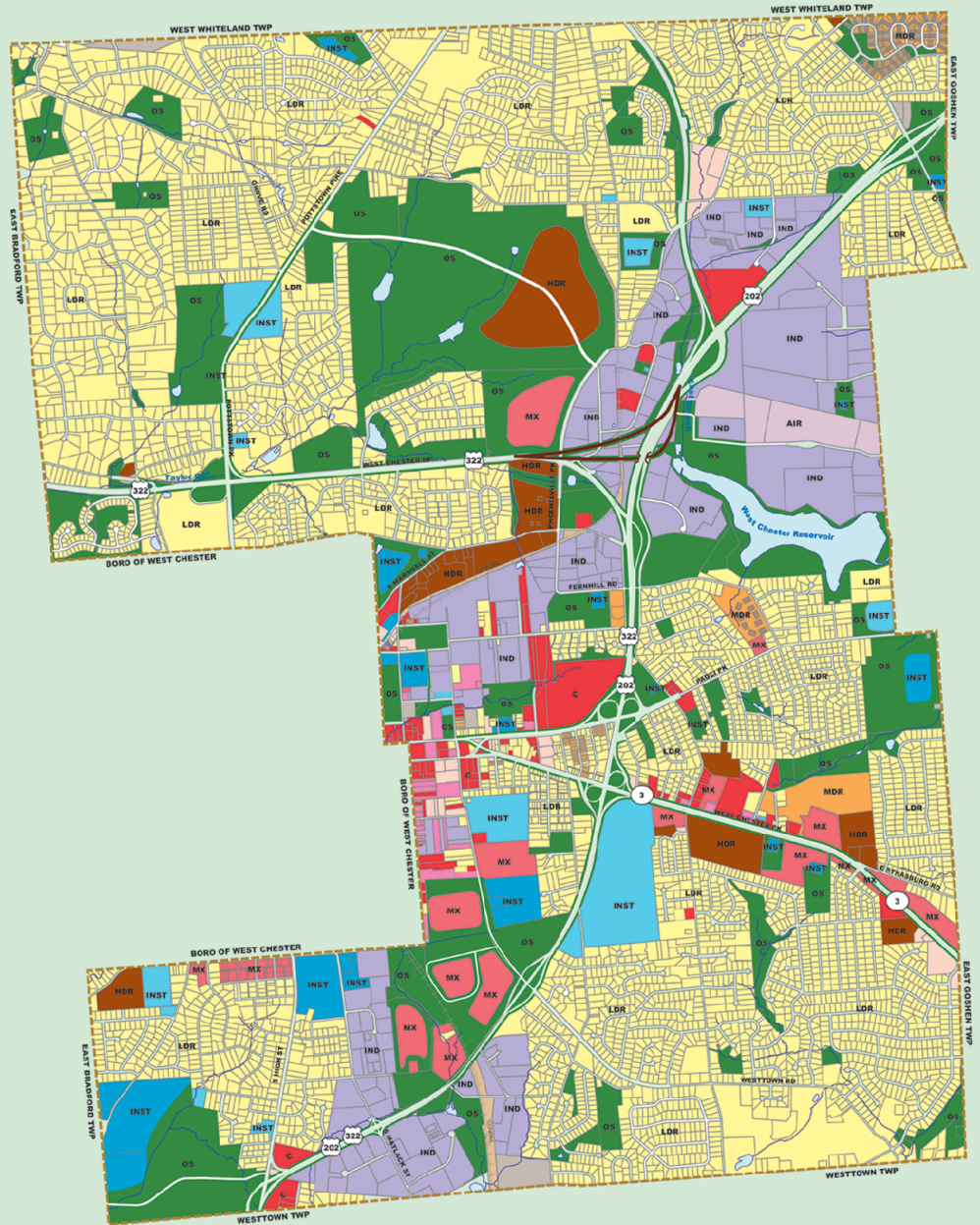


WEST GOSHEN TOWNSHIP

COMPREHENSIVE PLAN

September 2004



CHESTER COUNTY, PENNSYLVANIA

McCormick
Engineers & Planners
Since 1946 Taylor

The Vision

West Goshen Township comprises a multi-faceted municipal experience offering a combination of residential, industrial and commercial development, with the promotion of the township as a total community as the ultimate goal. The goal or vision of the township is to further develop and improve the municipality for the betterment of its residents, tenants and visitors.

The Plan

This Comprehensive Plan directs attention toward quality-of-life issues for township residents. Its goal is to build a more cohesive community over the next twenty years, with increased opportunities for residents to move about their municipality and to make use of local facilities. A key objective of the Plan is to link neighborhoods together and tie them to schools, shopping, community services, and employment centers by means of an extensive open space and trails system. Connections, by car or bike or on foot, from residences and office centers to new special-identity areas at the Westtown Road interchange of US Route 202 and at the intersection of Phoenixville Pike and US Route 322 are also a feature of the Plan, incorporating roadway improvements, pathways, and other pedestrian and bicycle amenities.

This Plan envisions the special identity areas or Interchange Activity Centers as clearly identifiable and recognizable places that can act as a focus for community life, including office, commercial, residential development in a closely-knit walking precinct. The Plan also recommends upgrades to the functions and image of the West Chester Pike corridor, including roadway improvements, street trees, sidewalks, pedestrian crosswalks, bus shelters, and new lighting.

Taken together, the Plan's recommendations represent a logical evolution for the community, as it strives to maintain a balance of residential, commercial, and office park uses, respond to the challenges posed by high traffic volumes, and create a better place to live and work.

Acknowledgements

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Dr. Robert S. White, Member

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This plan was prepared by West Goshen Township with technical assistance provided by McCormick Taylor and the Chester County Planning Commission. Funding was provided, in part, through a grant from the Vision Partnership Program sponsored by the Chester County Board of Commissioners. The plan has been prepared in conjunction with the principles of the county's policy plan, *Landscapes*, as a means of achieving greater consistency between local and county planning programs. The policies embodied in the Comprehensive Plan reflect the views of West Goshen Township.

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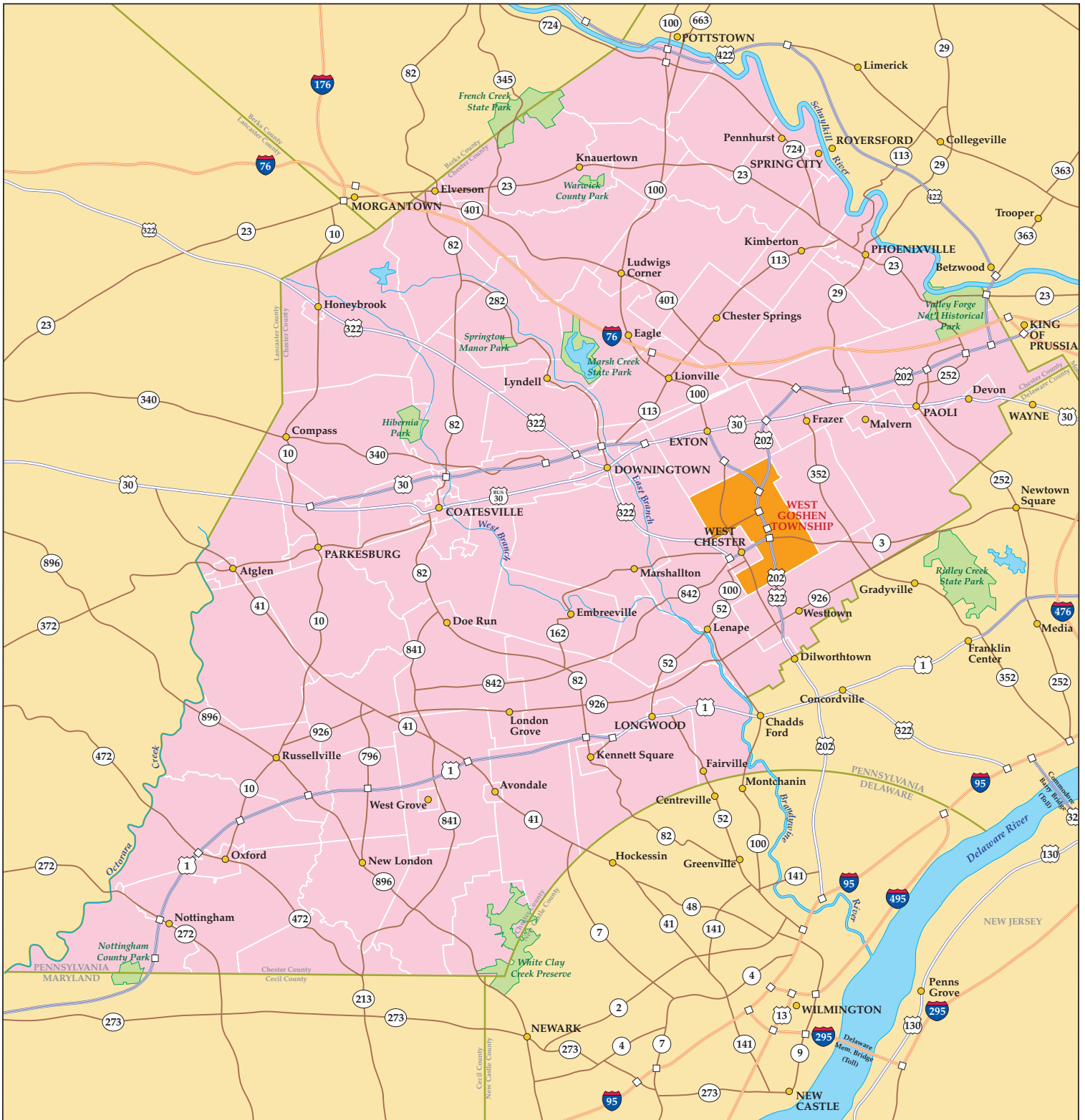
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WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 1.1 Location of West Goshen Township

- Interstate Highways
- State Highways
- County Roads
- Streams / Lakes
- Park
- County Boundary

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Since 1946

October, 2003

Chapter One: Background/Planning Process

Growth Trends and Issues

West Goshen Township is located in east-central Chester County, about thirty to thirty-five miles from central Philadelphia. The most prominent physical features of the township are its gently rolling hills. Within the township is a complex pattern of streams, including Taylor Run and the East Branch of the Chester Creek, and closely-associated narrow bands of steeply sloping land.

The township contains approximately 12 square miles of land area and measures just over 3 miles in an east-west direction and just over 4 miles from north to south. The municipality is traversed by several important highways, notably US Route 202, PA Route 322 (West Chester Bypass), PA Route 3 (West Chester Pike), Pottstown Pike and PA Route 100. Historically, the West Chester Branch of the Pennsylvania Railroad crossed the north central portion of the township, with two stations located within the township – Fern Hill Station and Green Hill Station. The railroad has been abandoned and the right-of way has reverted to adjacent landowners. The other railroad in West Goshen, the West Chester and Philadelphia Railroad, crossed the southern part of the township. There were not any stations for this railroad in the township. The line is now owned by Southeastern Pennsylvania Transit Authority (SEPTA). However there is no service from Philadelphia on this line past Elwyn Station in Delaware County.

The 2000 United States Census puts the population of West Goshen Township at 20,495, representing an increase of 2,413 persons (13.3%) from 1990. In addition the number of people that work in the township is slightly lower than the resident population, with approximately 18,000 persons employed in the municipality. The present ratio of employed persons to residents is likely to continue, however, there are concerns that additional office and residential development will increase traffic throughout the township, most notably at key interchanges during rush hours.

Current land uses in the township represent a rich and diverse mixture. The mix contains a full range of development, including various types of residential development, several large employment centers, older industrial areas, linear strips of mixed offices, commercial services and residences along West Chester Pike, Paoli Pike and Route 202, a major university, a golf club, a private airport, and several parks at various places in the community. The concentration of places of employment, primarily in the form of office parks and freestanding corporate office buildings, is at two of the six interchanges of US Route 202. The Boot Road interchange area has the largest concentration, with the QVC and Airport Industrial Parks.

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Residential areas are predominately concentrated in the northwest and southeast corners of the township, with a smaller area concentrated in the southwest corner near the West Chester Borough line. While the residential areas form significantly large areas of land use, the major roads that travel through the township effectively isolate these areas into smaller residential neighborhoods.

Historically, West Goshen Township was predominantly agricultural, and remained so until the 1950s. The township was ideally suited for agriculture with its gently rolling hills, fertile soils, abundance of water, mild climate, and access to large markets. Prior to the emergence of the business parks and single-family detached residential neighborhoods that presently characterize the municipality, land use had evolved into light industrial uses such as warehousing, distribution and assembly facilities as well as auto-oriented commercial and industrial uses such as sales, repair, painting and trucking.

An important issue of concern to residents of West Goshen Township is the preservation of both the natural and cultural resources of their municipality. Specific issues relating to the preservation of natural resources include preserving open space, the creation of parks, and the preservation of the last remaining large tracts of land in the township. Preserving historic buildings and sites is of special concern for the community as these resources continue to be threatened by development activities.

Recent Planning Activities

West Goshen Township has been reasonably active over the past 26 years in terms of community planning efforts, starting with the preparation of the township's last comprehensive plan in 1977. More recently, the township prepared a Parks, Recreation, and Open Space Plan, which was adopted in 1990 and updated in 1993. The township has also prepared periodic updates to its Act 537 Sewage Facilities Plan and recently, in January 2003, updated its Subdivision and Land Development Ordinance of 1976. Since the first zoning ordinance was adopted in 1940, there were major amendments in 1965 with changes in the designated districts. While there have been amendments to the zoning ordinance over the years, the basic pattern of zoning districts in the township has remained relatively unchanged over the past four decades.

West Goshen Township is a participant in Chester County's Vision Partnership Program. In 1997, the township received the county's Consistency Review Report, which compared the Chester County Comprehensive Policy Plan, *Landscapes*, to the township's current comprehensive plan and development regulations. The Consistency Review

Chapter One: Background/Planning Process

Report concluded that the township's comprehensive plan was consistent with *Landscapes*, but that further review and discussion needs to take place to adjust the Landscape boundaries to achieve greater consistency between the *Landscapes* plan and the township future land use plan. Other areas where the report recommended the township give additional consideration include strengthening the cluster provision, implementing additional water resources protection, scenic and historic resources protection, and establishing a trail/bikeway system. In addition, the report strongly recommended an update to the 1977 Comprehensive Plan. West Goshen Township's 2002-2003 update of its comprehensive plan has been undertaken under the terms of Chester County's Vision Partnership Program, including financial support from the county.

The preparation of a new Comprehensive Plan for the community is key to efforts to put into place appropriate tools to address pressing growth and resource management issues.

The 2002-2003 Comprehensive Plan

The purpose in preparing a new Comprehensive Plan is fourfold. First, the database for the township has been brought up to date. Chapter Two includes surveys of natural and cultural features, the current land-use pattern, the road system, and the systems of public services and utilities; analyses and projections of population and housing; and an examination of the rate and types of change in the township over the last twenty years. Second, the Plan identifies the basic direction and structure recommended for the future development of the township, derived from explorations of alternative development patterns. Third, the Plan specifies the goals, policies, and individual elements that will form the basis for the development of the municipality. Finally, the Plan lays forth a specific implementation strategy and program to aid West Goshen Township in achieving the goals of the Plan.

A Comprehensive Plan for West Goshen Township has the potential to provide a highly-effective planning tool that will support day-to-day decisions about future development so that they may be thoroughly rational and consistent and at the same time move the township in a desirable direction in terms of open space conservation, roadway corridor planning, traffic management, historic preservation, and recreation facilities development.

A Plan that is fully responsive to the needs of the residents of the township needs to contain both long-range and short-range programs, must balance local needs and perceptions with regional requirements and perspectives, and

Chapter One: Background/Planning Process

contain its own logic and strategy for implementation. A good Plan can also serve as a “road map” for West Goshen Township, both in terms of informing and improving the process of reviewing and approving development plans, and in projecting a coherent and mutually agreed-upon development framework and visual image of the community. A new Comprehensive Plan should serve as an everyday working document to be referred to regularly in the review of development proposals and in the planning of long-range capital improvements.

A Comprehensive Plan for West Goshen Township needs to relate to and be coordinated with the Chester County Comprehensive Plan, but at the same time must reflect the unique characteristics and setting of the municipality and the point of view of its residents. The Comprehensive Plan must also be responsible to the requirements of the Commonwealth of Pennsylvania’s Municipalities Planning Code (MPC) as to content and the procedure for the preparation and adoption of municipal comprehensive plans.

The Comprehensive Planning Process

In recognition of the age of the 1977 Comprehensive Plan and growing local concerns about the location, pace, and character of recent and future development in the municipality, the Board of Supervisors of West Goshen Township directed the creation of a Comprehensive Plan Task Force to guide the Plan preparation and oversee the work of the consultant.

Through the Plan preparation process, the Comprehensive Plan Task Force met on a regular basis with the consultant. The Task Force has had several critical roles to play, including:

- Monitoring progress on the *Work Program Schedule*, including scheduling and coordinating all Workshops and Public Information Meetings according to the Comprehensive Plan Work Program Schedule;
- Reviewing study products of the consultant, providing feedback to the consultant, and participating in the consensus-building process;
- Providing information and ideas to the consultant and providing data/contacts/leads and direction to the consultant for upcoming tasks in the Work Program Schedule as the process was underway;
- Publicizing the Plan, encouraging community participation and media coverage, advertising specific Public Information Meetings and Public Hearings, and promoting the comprehensive planning process generally and the growth management ideas that emerged during the

Chapter One: Background/Planning Process

planning process.

Three Public Information Meetings were held during the course of the Plan preparation, under the auspices of the Comprehensive Plan Task Force. The first Public Information Meeting, held in March 2003, was an introduction to the process being undertaken and an opportunity for the Comprehensive Plan Task Force and consultant to present the range of issues and choices to be examined in the overall Comprehensive Plan preparation process. The second Public Information Meeting occurred in July 2003, when serious decisions needed to be made as to a direction for the community to take in the coming years, based upon the examination of Alternative Futures in Phase B of the process. The third Public Information Meeting took place in September 2003, when a Preliminary Draft of the Growth Management Plan chapter was under review by the Comprehensive Plan Task Force.

The response of the public to the information and concepts presented was an important consideration in the decision-making of the Comprehensive Plan Task Force. These Public Information Meetings served to update local residents, business operators, landowners, and other interested parties on progress on the new West Goshen Township Comprehensive Plan and elicited feedback on the ideas being put forward by the Comprehensive Plan Task Force.

After three public meetings that were held throughout the Comprehensive Planning process, a Public Hearing was held on the completed Draft Comprehensive Plan on September 8, 2004 for adoption action by the Board of Supervisors of West Goshen Township. The Public Hearing formal review process rounded out the extensive community participation program, including the three aforementioned Public Information Meetings. Community participation was a hallmark of the comprehensive planning process, in order to fully inform residents and to create a strong consensus as to the most desirable and achievable common future for West Goshen Township.

The Work Program Schedule (Figure 1.3) outlines graphically the Comprehensive Plan process that was followed, consisting of three distinct phases.

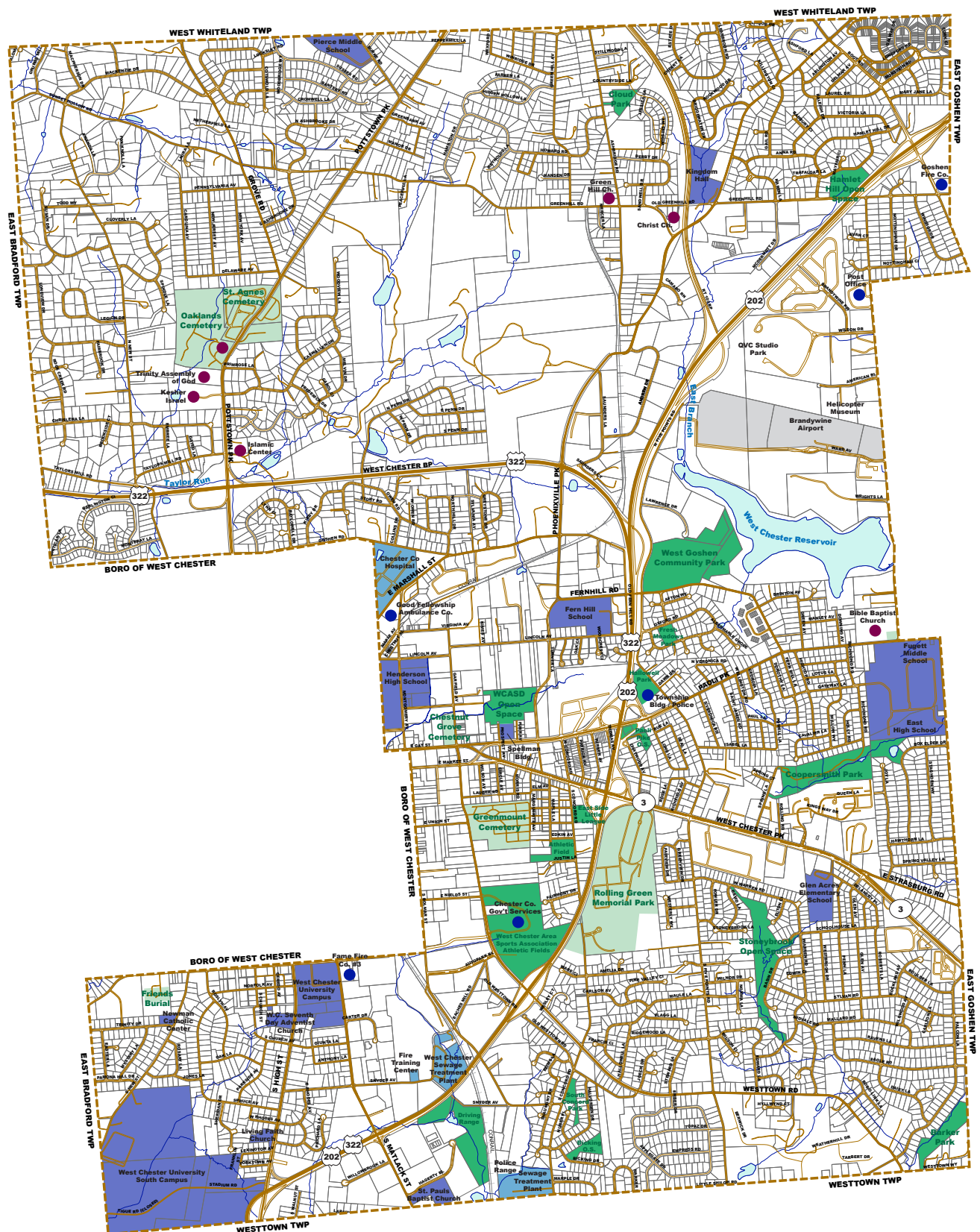
The first phase of the Plan preparation ('Phase A') was primarily devoted to background data collection and the documentation of change in the township during the last twenty years. Tasks within this phase included a review of earlier planning documents and data, creating the base maps of the township for the study, an inventory of natural and cultural features and development limitations, documentation and projections of demographics and development activity, a land-use field survey, documentation of water and sewer facilities,

Chapter One: Background/Planning Process

and documentation of physical change.

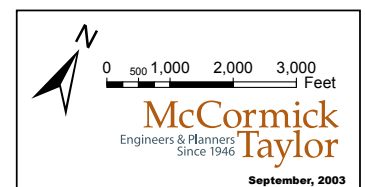
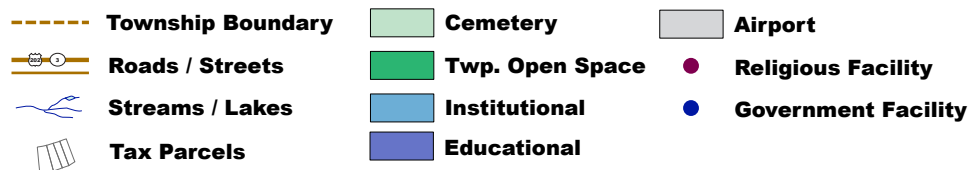
As a foundation for the work in Phase B, Phase A concluded with the setting of preliminary goals and objectives for the Plan. Phase B itself incorporated a systematic exploration of a variety of planning and development issues and alternative development patterns, culminating in the definition of preliminary development plan recommendations based upon on the approach to the future development of the community selected by the Comprehensive Plan Task Force.

The third phase, Phase C, focused on the actual preparation of the Comprehensive Plan for West Goshen Township. The Plan was prepared as preliminary drafts, reviewed by the Comprehensive Plan Task Force, and revised to final draft form. The end of Phase C encompassed the period of public reviews and hearings on the final draft of the Plan. Revisions were made based on those reviews and hearings and a camera-ready original of the Plan was prepared for printing and public distribution.



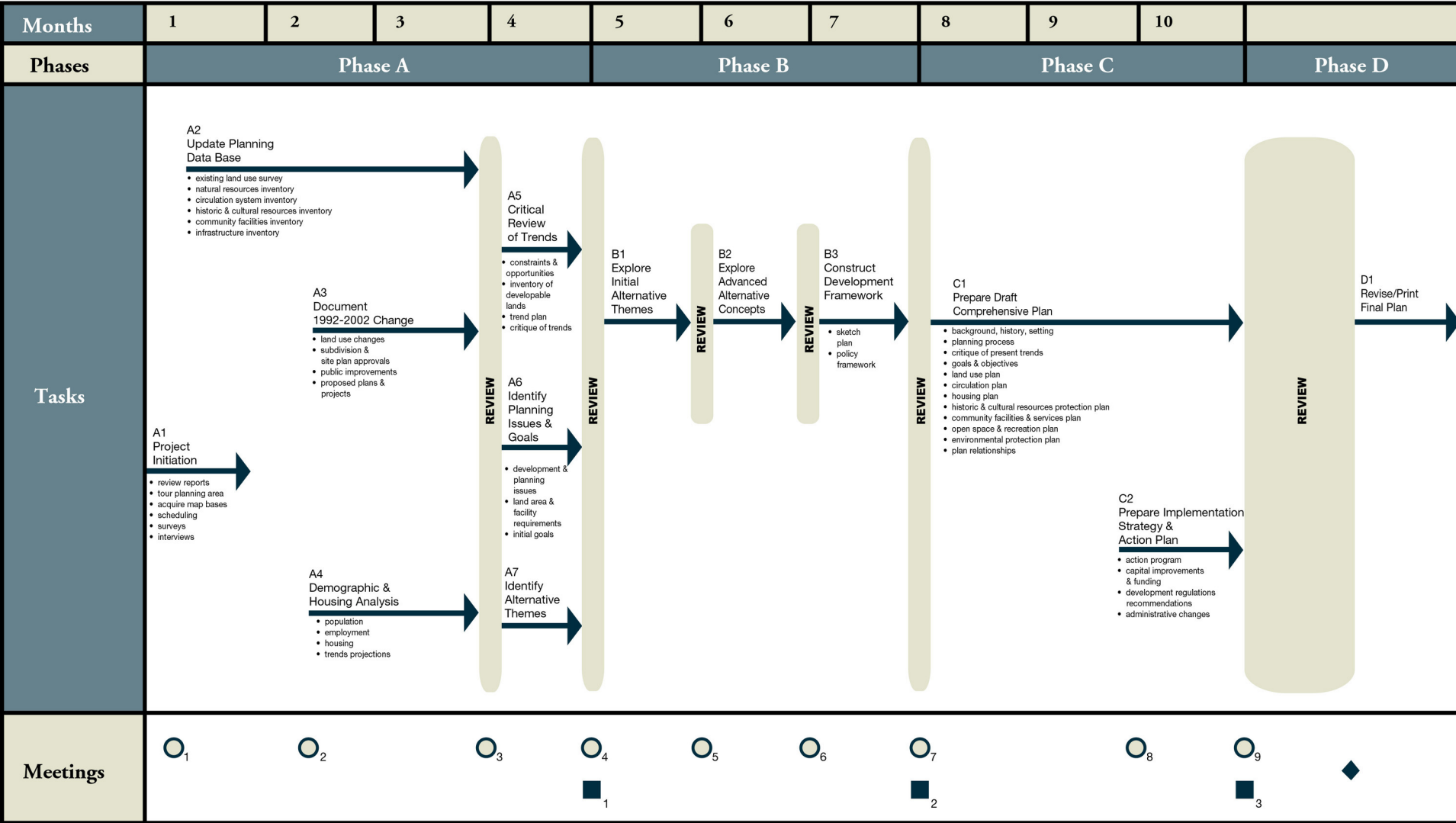
WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 1.2 Selected Community Features



Work Program Schedule

West Goshen Township Comprehensive Plan Update



○ Comprehensive Plan Task Force Workshops

■ Public Information Meetings

◆ Public Hearing

Chapter Two: Existing Conditions

Chapter Two: Existing Conditions

SECTION 1: INTRODUCTION

The purpose of this chapter is to analyze existing conditions in West Goshen Township. In particular, this chapter seeks to develop a clear understanding of the township's physical, demographic, social, and economic conditions, based on current circumstances and historical development. This analysis is intended to enable the municipal government and township residents to identify potential problems, to determine future needs, and to develop necessary policies and strategies to respond more effectively to future growth.

The material in Chapter Two is based on a series of background studies produced during the planning process. The chapter consists of eight sections in addition to this introduction: Existing Land Use; Pattern of Change; Natural Resources; Cultural, Historic, and Landscape Resources; Population, Housing, and Employment; Holding Capacity; Circulation; and Community Facilities.

The *Land Use* section provides a description of existing land use patterns and their implications for future development. The *Pattern of Change* section presents an analysis of recent development activity in the township. The *Natural Resources* section provides a summary of environmental factors that are capable of affecting the location and intensity of future development. *Cultural, Historic, and Landscape Resources* documents other environmental factors, some man-made, that are germane to consideration of prospects for new development in West Goshen Township. The *Population, Housing, and Employment* section reviews selected socio-economic characteristics of residents and employers, and data on housing development. Included are population and housing forecasts. The *Holding Capacity* section describes the supply of vacant or otherwise easily-developable parcels of land in the municipality. The *Circulation* section assesses existing conditions regarding traffic and circulation, while the *Community Facilities* section analyzes services and facilities serving the township.

Much of the information concerning the subjects covered in this chapter is contained within maps associated with its individual sections. As a general orientation aid to the geography of the township and to the maps contained in Chapters Two and Three, the preceding Figure 1.2, Selected Community Features, should be consulted.

Chapter Two: Existing Conditions

SECTION 2: EXISTING LAND USE

Using aerial photography from the year 2000, relevant planning documents, and focused field reconnaissance, a generalized full-color map of current land use in the township has been constructed (Figure 2.2.1). The inventory includes the traditional full range of urban land uses, such as single-family and multi-family residential, commercial, institutional, recreational, industrial, and utilities, and major categories of non-urban uses, such as agriculture, vacant, and open space lands. (Reference to Figure 1.2, Selected Community Features, is also recommended.)

The purpose of the land use survey is to document and assess the pattern and intensity of utilization of land in West Goshen Township. Based on this assessment, it is possible to evaluate the compatibility of existing uses, the extent of land consumption, and to predict the direction that future development may be expected to take in light of existing conditions. The survey also makes apparent the remaining amount and location of land available for future development.

Residential Use

In the first half of the twentieth century, West Goshen Township was mostly agricultural, with the principal exception of mixed commercial activities on Gay Street in the area adjacent to West Chester Borough as well as along West Chester and Paoli Pikes. Today, about two-thirds of the township is in residential use, mostly single-family detached housing, with virtually no land left in agricultural use.

Residential use is concentrated along the northern tier of the township to the boundary with West Chester Borough and also in the southeast corner of the township. There are also two small pockets of residential use, one located between the southern boundary of West Chester Borough and the West Chester University South Campus and the other at the eastern end of the township between the West Chester Reservoir and the commercial uses along West Chester Pike.

Residential areas comprise 3770 acres of township land. Residential land is predominately occupied by single family detached uses. Higher density residential uses are concentrated in two areas of the township. One area is along West Chester Pike, where two low-rise apartments complexes and a townhouse development are located. The other main area of higher density residential development is between Marshall Street and the Conrail tracks from Phoenixville Pike to Montgomery Avenue. In addition to the

Chapter Two: Existing Conditions

aforementioned areas, there is also a large townhouse development, the Village of Shannon in the northeast corner of the township, at the border with West Whiteland and East Goshen Townships. Finally, there are two other townhouse developments on Fernhill Road.

Commercial Use

In contrast to the residential pattern, commercial uses, which comprise 1019 acres in the township, tend to be in a few, clearly-defined areas. Retail commerce and commercial services, for the most part, are confined to the West Chester Pike, Paoli Pike and Bolmar Street corridors. There is retail mixed with residential uses along West Chester Pike. The Paoli Pike corridor has a significant commercial area consisting of the West Goshen Shopping Center at the intersection of US Route 202 and Paoli Pike and additional commercial along the Pike towards West Chester Borough. The other significant retail area is between Garfield Avenue and Bolmar Street at the boundary with West Chester Borough. This area consists mainly of auto-oriented commercial. In addition to these concentrated commercial areas, there are few commercial developments interspersed with industrial uses.

There is not a significant concentration of office uses; they occur throughout the three aforementioned corridors.

Industrial Use

Industrial use comprises 300 acres in the township and is located in two particular areas of the township. There are mostly light industrial facilities in West Goshen, consisting of enclosed manufacturing, assembly, and warehousing facilities that present a similar appearance to office or retail commercial structures.

The first area where industry is concentrated is in the northeast section of the township from Greenhill Road following US Route 202 south between the eastern boundary of the township and Phoenixville Pike. This is the most significant zone of light industrial use and includes the QVC Studio Park and Brandywine Office Park. This area continues to the west of US Route 202 and ends to the south of the Conrail tracks near the West Chester Borough line.

The second major industrial area is located in the southwest section of the township along US Route 202 from the Westtown Road interchange to the South Matlack Street interchange. Three major light industrial developments in this area use South Matlack Street as a main access street.

Chapter Two: Existing Conditions

In addition to these concentrated areas of light industrial development, there are several light industrial sites interspersed with other uses along Garfield Avenue.

Institutional Use

Public institutional use in West Goshen Township encompasses the following elements:

- West Goshen Township Municipal Complex on Paoli Pike, which contains the Administrative, Police and Public Works Departments;
- West Goshen Township Police Pistol Range on South Concord Avenue;
- Borough of West Chester Fire Training Center on Snyder Avenue;
- Pierce Middle School on Burke Road;
- Fern Hill School on Lincoln Avenue;
- Henderson High School on Montgomery Avenue;
- Fugett Middle School and East High School on Ellis Lane;
- Glen Acres Elementary School on Delancey Place;
- West Chester Area School District Spellman Building on Paoli Pike;
- Chesterbrook Academy on McDermott Drive;
- West Chester University South Campus on South New Street;
- West Chester University North Campus on Rosedale Avenue;
- Chester County Hospital on East Marshall Street;
- Good Fellowship Ambulance Club on Montgomery Avenue;
- Fame Fire Company #3 on Rosedale Avenue;
- Goshen Fire Company on Boot Road;
- Post Office on Airport Road;
- Chester County Government Services Building on Westtown Road;
- Helicopter Museum on American Boulevard.

Private institutional uses include cemeteries and churches. The largest land holdings include Rolling Green Memorial Park on West Chester Pike, the Oakland and St. Agnes Cemeteries on Pottstown Pike and Greenmount Cemetery on Westtown Road. Churches are located throughout the township and will be discussed in greater detail in Section 9 of this chapter.

Utilities and Transportation

As has already been noted in Chapter One, highways and railroads are prominent elements in the landscape of West Goshen Township. The municipality is crossed by several highways, notably US Route 202, US Route

Chapter Two: Existing Conditions

322, Pottstown Pike, Route 100 and PA Route 3 (West Chester Pike), with a local system of roads laid on the framework of major routes. An unused rail corridor runs north to south through the township passing through the Borough of West Chester and ending on Greenhill Road. In addition, SEPTA's historic R-3 regional rail corridor runs north to south through the southern portion of the township from the Westtown Township line to the West Chester Borough line. This railroad is currently used for periodic private excursion trips.

There is a private airport, Brandywine Airport, located on Airport Road. It serves as a regional airport with the capacity for small airplanes as well as an emergency landing strip for Class 3 airplanes.

Utility uses include two sewage treatment plants - the West Chester Sewage Treatment Plant on Snyder Avenue and the West Goshen Sewer Authority located on South Concord Road and the West Chester Reservoir, which is controlled by Philadelphia Suburban Water Company.

Parks & Permanent Open Space

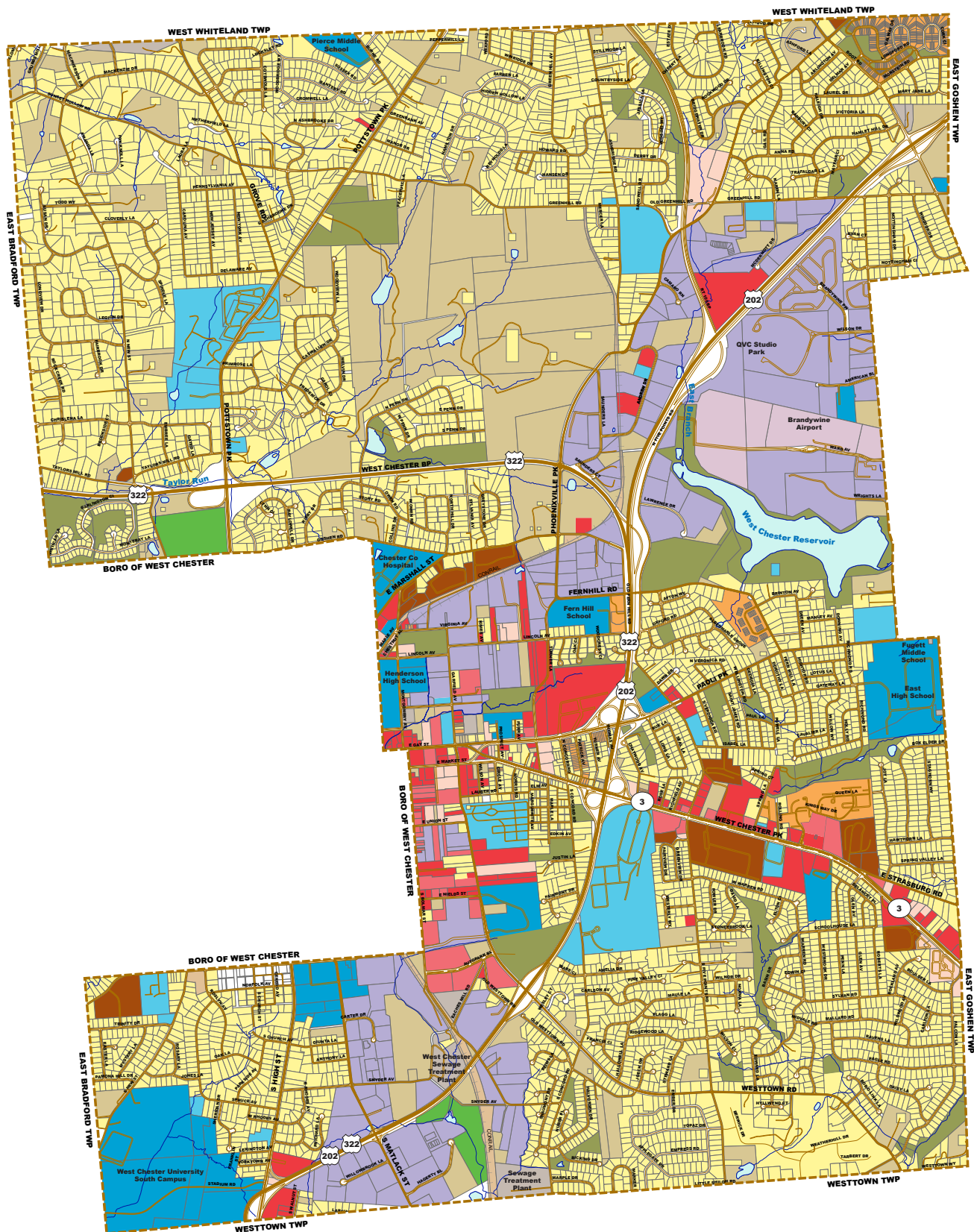
The Parks and Permanent Open Space land use category includes all of the public parks and other township-controlled parcels in the community, sports field areas associated with school campuses, the West Chester Country Club golf course, and deed-restricted lands that are permanently prohibited from developing based upon residential land development approvals made over the last twenty-five years.

Agriculture & Vacant

Open areas are found in a variety of places and circumstances. This category includes woodlands, in addition to open ground that is not being actively used.

There is really only one large, open, and relatively unconstrained tract in the township, the Jerrehian Estate property. It is mostly undeveloped and located in the central-north portion of the township.

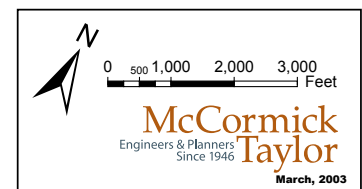
Several other properties scattered throughout the township, while containing active uses, have portions of the acreage delineated as open. Since these parts are unused, the property could, conceivably, accommodate additional development.



WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 2.2.1 Existing Land Use

Single Family Detached	Commercial - Retail	Golf Course
Twins / Townhouses	Light Industrial	Parks, Open Space
Apartments	Private Institutions	Vacant, Agricultural
Office	Public Institutions	Utilities
Commercial - Auto Oriented	Airport	



Chapter Two: Existing Conditions

SECTION 3: PATTERN OF CHANGE

Office commercial, retail commercial, residential, industrial, institutional and related development in West Goshen Township has been extensive in the period from 1992-2003 (Figures 2.3.1 and 2.3.2). The pattern of construction for this development was widespread, although the concentration of light industrial development activity was focused on the US Route 202 corridor.

In total, more than 1,460 acres of land (19% of available township land) was developed for commercial, residential, industrial, and commercial uses in the period, with nearly 700 acres for residential purposes and about 105 acres of industrial development. Commercial development consumed about 650 acres of land.

Commercial Use

Commercial uses accounted for a large proportion of recent development in the township with most of the commercial development consisting of office construction. Office commercial is primarily located in the Brandywine Airport Industrial Park as well as near interchanges for US Route 202, especially at South Matlack Street and Boot Road.

New retail commercial development was more limited in scope with the largest commercial development during this time being the West Goshen Shopping Center on Paoli Pike and US Route 202.

Residential Use

Over the twelve-year period, residential construction took place on 700 acres in West Goshen Township. Single-family detached units unquestionably dominated residential growth. Most of this growth occurred in the northern half of the township since the southern half had been largely developed by 1990.

There have been few single-family attached (townhouse) developments. The largest one, Village of Shannon, contains 356 units and is located in the northeast corner of the township. Other developments of this type include Brinton Woods, Goshen Commons with 105 units, and the Village of Fern Hill with 20 units. These developments are all located in the central section of the township.

No major multi-family (apartment) unit structures have been developed in recent

Chapter Two: Existing Conditions

years, although renovations to the structure and functionality of apartment buildings have taken place. The last developments of this type were built in the township in the late 1960s and early 1970s.

Industrial Use

Industrial development over the last twelve years has been relatively modest, consisting largely of warehouses, distribution, assembly, and automotive-related operations . These activities have occurred at the QVC/Airport Industrial Park area and south of the Conrail tracks to the east of West Chester Borough.

Pending and Proposed Development

Pending and proposed development includes approved-but-unbuilt developments and prospective developments (Figure 2.3.3). The total land area in pending and proposed developments is 101 acres, with 41 acres planned for residential development, 51 acres for recreational use and 9 acres planned for institutional use.

Pending and Proposed Residential Development includes the following:

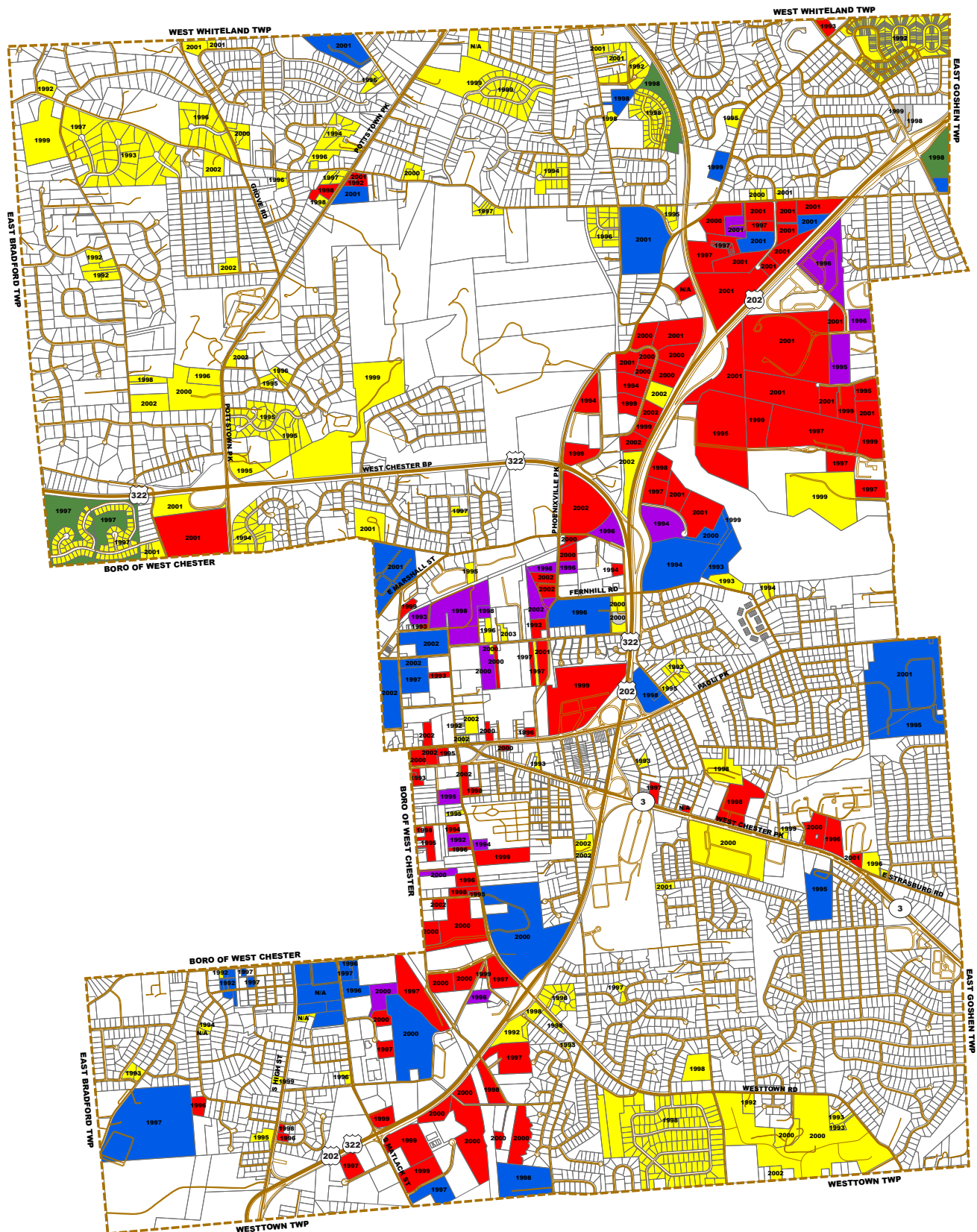
- Wiltshire, Goshen Road, 11 single-family units
- 8 single-family units, Ashbridge Road
- Cold Spring Run, Old Westtown Road, 15 single-family units
- Meadowbrooke, Westtown Road, 14 single-family units
- Shadeland Woods, Phoenixville Pike, 45 townhouses
- Off-campus Student Housing developed by Educational Properties Group, 460 beds

Pending and Proposed Institutional Development includes the following:

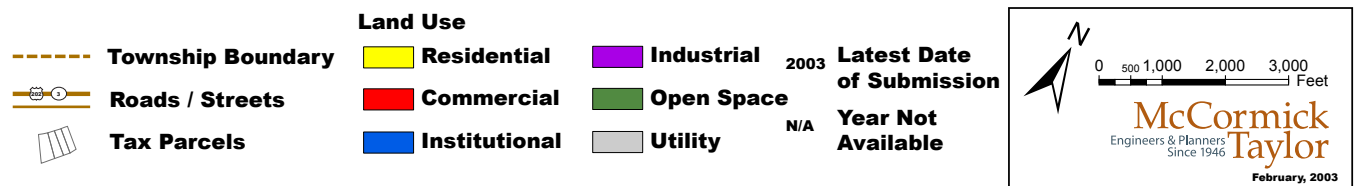
- School of Music and Performing Arts Center, West Chester University, Matlack Street
- Domestic Violence Center, East Gay Street

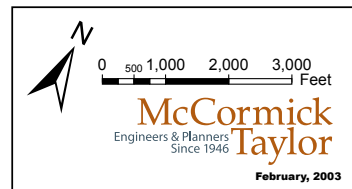
Pending and Proposed Recreational Development includes the following:

- West Chester Area School District, fields for Henderson High, Pottstown Pike, 28 acres
- Planned Skate Park along Pottstown Pike, 3.5 acres
- Driving Range and Nine Hole Golf Course, Snyder Avenue, 19.6 acres



WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE **Figure 2.3.1 Subdivisions & Site Plan Approvals 1992 - 2003**





Chapter Two: Existing Conditions

SECTION 4: NATURAL RESOURCES

The natural characteristics of the landscape in the township have been an important factor in determining its pattern of development. Areas of significant physical constraint — floodplains, wetlands, and steep slopes — have generally been less likely to be subject to development. These natural determinants continue to be constraints to development. Other factors, such as the presence of hydric soils or woodlands, have also been influential in determining activities in West Goshen Township.

As part of the examination of existing conditions in the township, an inventory and analysis of various environmental factors was made. These factors are critical components in any consideration of future alternatives for growth and development. It is also important to note that some of these factors may impose constraints on development while others suggest opportunities for development. It is possible for an environmental factor to represent both an opportunity and a constraint.

Several analysis maps were prepared delineating these resources. This series of interrelated, interpretive maps has permitted the identification of areas requiring preservation, areas requiring conservation, and areas available for development within the township. Areas requiring preservation include creeks, streams, floodplains, and other lands that are generally undevelopable due to physical characteristics or statutory regulations. Areas in need of conservation include fragile environmental areas such as wetlands, steep slopes, and woodlands. These valuable resources should be protected or conserved due to the environmentally-nature of these areas and to their importance to the community. Natural resource information was combined and synthesized to illustrate the relative level of development constraints affecting various areas of West Goshen Township and summarized into a Composite Constraints map for this Comprehensive Plan

Other factors should be kept in mind when considering the issues of resource protection. First, areas in need of conservation also include a variety of man-made factors, discussed in Section 5 of this chapter. These resources include historic sites and scenic features. Second, for areas not requiring special efforts toward preservation or conservation, there remain other relevant factors that make lands more or less suitable for development. These factors include the availability of water and sewer service (or the prospect of their availability), road accessibility, and other issues.

Chapter Two: Existing Conditions

Hydrology

West Goshen Township lies within the primary watersheds of the Brandywine Creek and Chester Creek. The township falls within the sub-watersheds of Taylor Run and Broad Run, both tributaries to the Brandywine Creek. A significant portion of the eastern part of West Goshen Township (875 acres) falls within the East Branch of the Chester Creek sub-basin, flowing easterly and draining eventually into the Schuylkill River (Figure 2.4.1). Smaller drainage areas in the western portion of the township are located in the Broad Run, Taylor Run and Plum Run sub-basins.

In consideration of future development in the township, these drainage patterns are significant in the analysis of stormwater runoff as well as in planning for sanitary sewers. Other hydrologic characteristics contribute strongly to delineating areas that are available for development and those that are constrained for development. Of major concern are flood prone zones adjacent to bodies of water, and wetlands.

Development in floodplains is hazardous to life and property, not only for prospective development sites but in existing developed areas downstream that may be subjected to unexpected changes in stream channel location or in flood heights and velocities. The 100-Year Floodplain areas shown have been identified by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program. The FEMA Map numbers that correspond to the township range from numbers 42029C0351D through 42029C0354D.

The most extensive floodplains occur in lowland areas, where watercourse gradients are less and landscape profiles are wider than on hillsides. Floodplains for the tributary streams tend to be relatively narrow. Floodplain soils are generally found adjacent to the stream network. These soils historically have been eroded, transported, and deposited by floodwaters and generally indicate an area susceptible to flooding. These and other flood-prone areas are shown on the Flood Hazard Boundary Maps for West Goshen Township, as published by FEMA.

Areas within the township along Chester Creek, Goose Creek, Broad Run, Taylor Run and their tributaries are subject to periodic flooding or wet conditions.

Wetlands are among our most valuable resource areas because they control flooding, improve water quality, and support a wide variety of animal and plant species. Wetlands are characterized generally by a high water table, poor drainage, and some degree of surface ponding during the year. Most

Chapter Two: Existing Conditions

hydric soils qualify as wetlands if they support predominantly hydrophytic vegetation. A hydric soil is one that in its undrained condition is flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Hydric soils that do not qualify as wetlands are classified as having a “seasonable high water table,” indicating that they may become saturated during spring runoff conditions.

Wetlands are regulated by the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection. Essentially, no development activity may occur in a wetland area without a permit. The permit process requires an investigation of development alternatives. Mitigation may be required if development is to proceed; creation of new wetlands may be required to replace those disturbed or destroyed by development activity.

Although no comprehensive inventory of wetlands in West Goshen Township currently exists, the National Wetlands Inventory (NWI) undertaken in the 1980s by the United States Fish and Wildlife Service and the (then) Pennsylvania Department of Environmental Resources delineated wetlands in the township. These wetlands include surface water bodies, most floodplains, and other areas, generally along streams, identified by means of aerial photography.

According to the NWI, there are three types of wetlands in West Goshen Township, Lacustrine (West Chester Reservoir), Palustrine (swamps and small ponds) and Riverine (perennial or intermittent creeks or streams).

Geology & Soils

Bedrock underlying West Goshen Township determines its soil types and groundwater bearing capabilities. According to the West Goshen Township Park and Recreation Plan Update (1990), most of the township is comprised of granite gneiss, gabbroic gneiss and schist. Also, the township contains a small area of unique formation in the serpentine rock that is located along the Route 322 bypass.

Soils information is a vital component of any natural resource evaluation because soil characteristics indicate the inherent suitability of an area for development, agriculture, or other land uses. The principal source of soils data for the township is the Soil Survey of Chester and Delaware Counties, Pennsylvania (United States Department of Agriculture, 1963).

Chapter Two: Existing Conditions

Soils are a very complex mixture of various amounts of weathered rock, minerals, organic matter, water, and air. Through the action of climate, plants and animals on these geologic materials, soils are formed over long periods of times.

The general soil areas in a locality are called soil associations. Each soil association shown in the Soil Survey of Chester and Delaware Counties is a unique natural landscape, consisting of one or more major soils and some minor soils that occur together and have similar origins. In each association the major and minor soils occur in a distinctive pattern, and each association is named after its major component soils. The Soil Survey's General Soils Map provides a broad perspective of the soils' characteristics in the study area and can form the basis for determining general future land use designations, but the map does not show the type of soil found at a specific site. For information on soils found at a specific location, the detailed photo-map sheets in the Soil Survey of Chester and Delaware Counties must be consulted.

The soil associations in West Goshen Township are: Glenelg-Manor-Chester Association consisting of shallow to deep, silty and channery soils on grayish-brown schists and gneiss; Neshaminy-Glenelg Association of moderately deep and deep, well drained, silty, channery and gravelly soils on gabbro and granodiorite; and Neshaminy-Chrome-Conowingo Association formed by moderately deep and deep silty soils on serpentine.

All soils within soils associations have been analyzed with respect to their suitability for residential, commercial, industrial, or other development. The characteristics of the soil in any given location are, in themselves, prime determinants of what that land is best suited for under what conditions. The main characteristics considered are soil depth, degree of slope, internal drainage, freedom from flooding, type of parent material, and stoniness. When these same soil characteristics are analyzed in conjunction with the related features of a site — slope, vegetation, geology, etc. — an even more complete picture emerges of what would be appropriate uses. Most of West Goshen Township area is covered by the Glenelg series that consists of moderately deep, well-drained soils of uplands. These soils developed in material weathered mainly from granite, gneiss, and mica schist.

Chapter Two: Existing Conditions

Suitability for On-Lot Sewage Disposal

Soils have a natural assimilative capacity, meaning that the physical and chemical attributes of the soil allow for the removal of nutrients and infectious disease organisms from solutions passing through them. The efficiency in which this is accomplished depends upon five factors: Slope, soils infiltrative capacity, soil depth, soil texture, and soil moisture conditions.

- Slope influences retention time, or the length of the time that a solution remains in the soil before it enters either the ground or surface water systems. An increase in slope can result in a rapid lateral movement of water through the soil providing insufficient time for improvement of water quality. The water, still rich in nutrients and pathogenic organisms, is then added to the surface or ground water system, causing bacterial pollution and nutrient buildup.
- Infiltrative capacity is the ability of solutions to enter the soil column from the surface. For reconditioning of water to take place, the solution must filter into and through the soil column.
- Soil depth, like slope, influences retention time and can be a limiting factor to the proper renovation of sewage effluent. Shallow soils offer little retention time for water renovation before the solution leaves the soil column. Bacteria laden and nutrient rich effluent may enter the ground water as a pollutant.
- Soil texture refers to soil particle alignment and particle size, which can influence the degree and rate of renovation of effluent. A second element of soil texture that must be considered is the percentage of large rock fragments within the soil. Stoniness can be so extensive that there would be insufficient soil surface area for the adequate reconditioning of effluent.
- Soil moisture is an important factor in the renovation of waste water, with permeability being a measure of the ability of water to move through a soil. The rate of movement through a saturated soil is referred to as the percolation rate. Soils with restricted permeability can cause ponding of effluent at or near the surface resulting in a health hazard.
- A seasonally high water table is the periodic saturation of soil to a level near the surface (eight to thirty-six inches) as the result of slow permeability. High and seasonally high water table conditions result in holding effluent at or near the surface. In addition, excessive rainfall can result in the flow of the effluent directly into a stream system.

Chapter Two: Existing Conditions

The Glenelg soils that cover most of West Goshen Township have moderate available moisture capacity. Permeability and fertility are also moderate; their slopes are favorable for construction and because these soils are well drained and permeable, they are suitable fields for septic tanks. Some portions of the township are completely unsuitable for on-lot sewage disposal because they are in floodplains or have hydric soils, or are severely limited for on-lot sewage disposal on account of a seasonal high-water table.

Topography

According to the West Goshen Comprehensive Plan (1977), West Goshen Township is situated in the rolling hills of Chester County. Its lands are dotted with ponds and streams, open fields and patches of woodlands. The original native wood cover in the Township was oak, tulip, poplar, chestnut and beech, with oak as the predominant species.

The township does have areas of steeply sloping lands. Three categories of slopes are shown on Figure 2.4.2: Zero to seven percent, eight to fifteen percent, and eighteen to thirty-five percent. The slope of land, expressed as a percentage, is determined by measuring the vertical change in feet over a one-hundred-foot horizontal distance. The majority of the township (6,012 acres or 78%) contains slopes of less than seven percent. Areas of moderate-to-steeply sloping land (where the slope is between eight to fifteen percent) total 1,612 acres or 20% of the land area of the township. Steeply-sloping land, with slopes ranging from sixteen to thirty-five percent, amount to 56 acres or less than one percent of the area of the municipality.

Steeply-sloped land is generally found along Taylor Run and its tributaries and along other streams in the northwest and southeast corners of the township. On the most severely sloping land, precautions are necessary in the consideration of any land disturbance. The potential for erosion from earthmoving is increased on such slopes, both during and subsequent to the activity, unless specific measures are taken to reduce the risk.

Vegetation and Wildlife

The original vegetation of the township was a dense cover of trees. Today, the woodlands consist of second- and third-growth stands. Most woodlands appear to be in the age range of 40-60 years.

Chapter Two: Existing Conditions

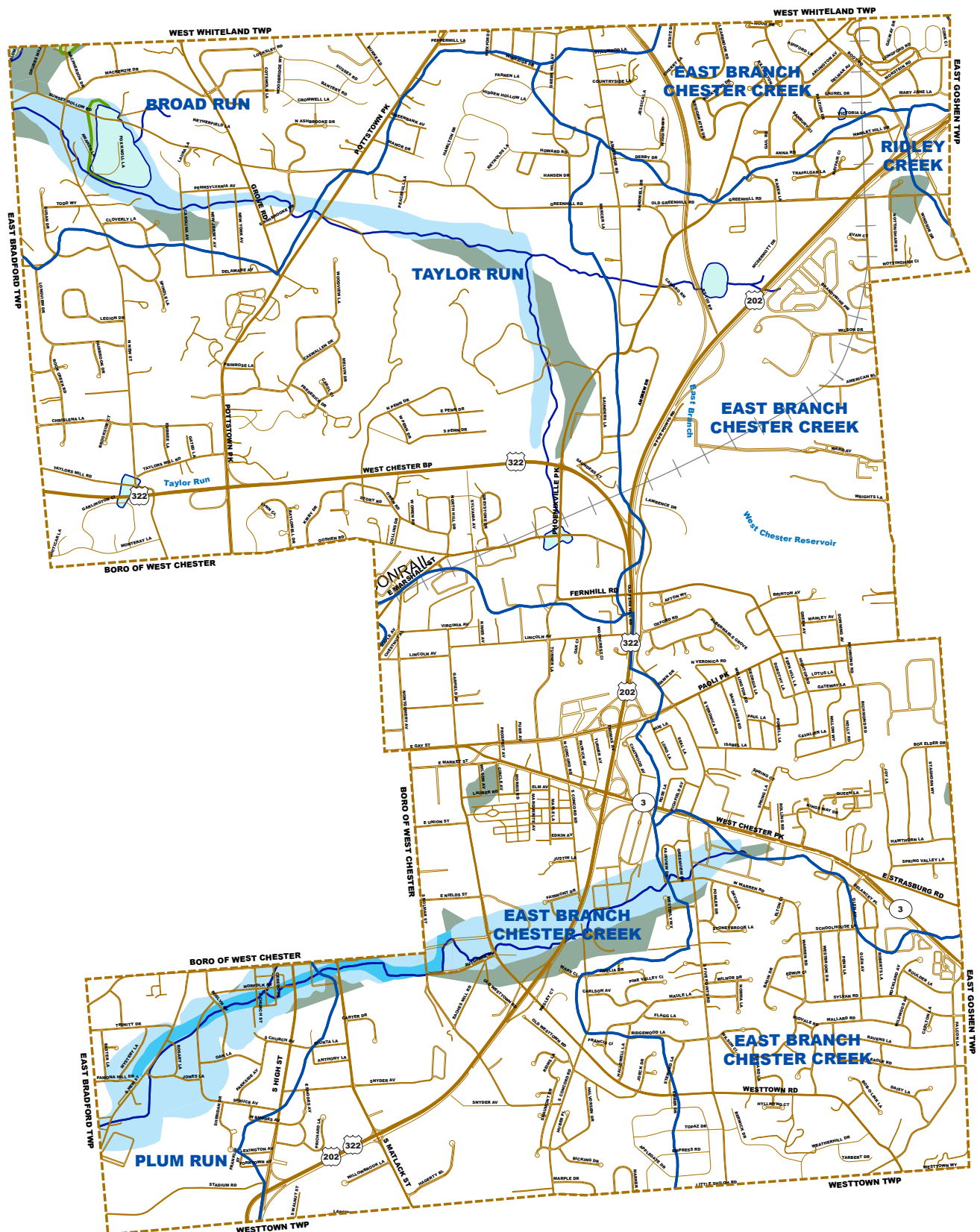
Many species of plants and animals may be found in the township's three main types of habitat — open field or pasture, forest, and wetlands. (Wetlands includes streams, springs, ponds, and meadows.) Although some species have adapted to more than one habitat, other flora and fauna have adapted to very specific needs and conditions, and are critically dependent upon particular habitat types. Generally speaking, man-made features are considered disruptive to natural habitats, but some, such as fields, pasture, hedgerows, and treelines, offer important food and cover sources.

According to the West Goshen Township Parks, Recreation, & Open Space Plan Update (1990), the Chester County Planning Commission has identified a unique natural area in the serpentine ridge at Fern Hill. Although a unique natural area is a determination that is not part of a protected resource category, nevertheless it is a formation that is determined to be locally significant.

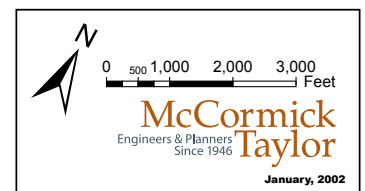
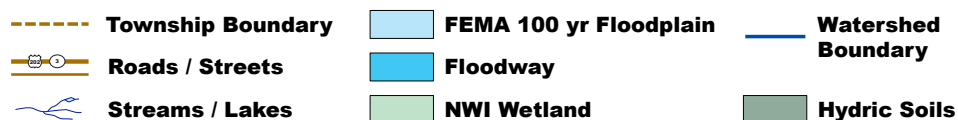
Composite Constraints

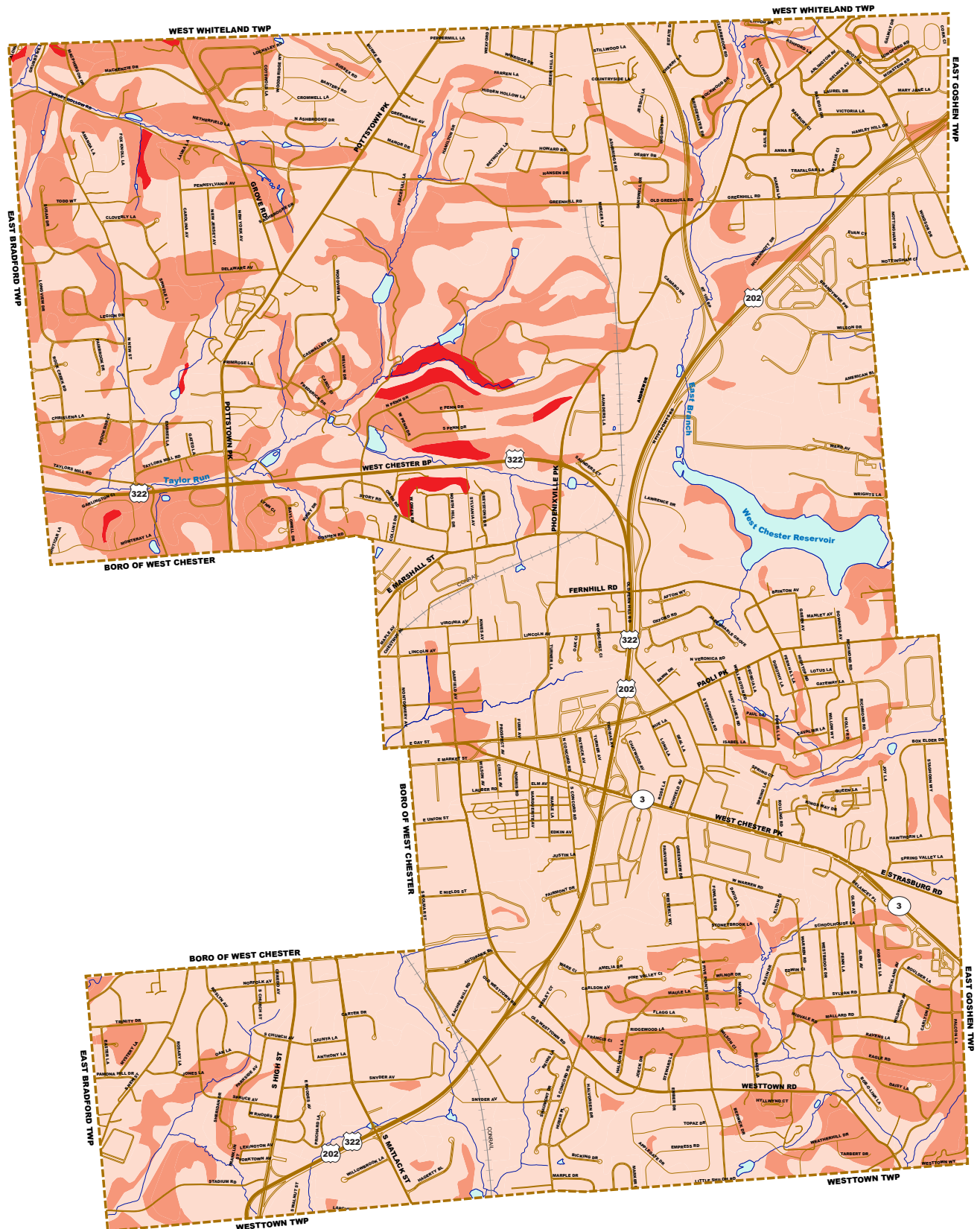
The preceding natural resource information was combined and synthesized to illustrate the relative level of development constraints affecting various areas of West Goshen Township (Figure 2.4.3). Areas with very severe constraints are generally precluded from future development due to flooding, while very steep slopes and wetlands pose severe constraints for most development. These areas may be most suitable for recreational use and wildlife habitat. Areas of seasonal high water table, with slopes between ten and twenty percent, or with woodlands have moderate constraints for development. The balance of the township has only slight development limitations.

The effect of the prominence of Taylor Run and other streams in the northwest and southeast corners of the township has been strongly felt in the delineation of the Composite Constraints map. Roughly twenty-one percent of the township ends up indicated on this map as having moderate, severe, or very severe constraints, reflecting the presence of the creek and its tributaries and associated wetlands and areas with seasonal high water table, the steep slopes alongside the creek and on the sides of the valley, and the extensive woodlands. Most of these constraints are moderate, comprising approximately nineteen percent of the total. The severe and very severe constraints comprise less than one percent each of the township area.



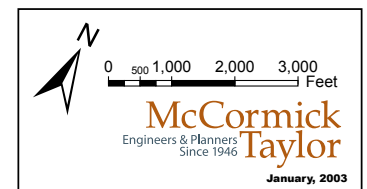
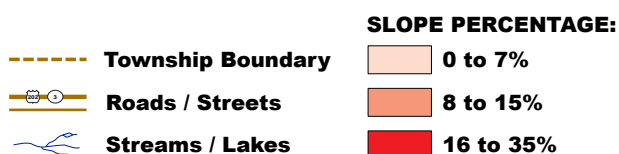
WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE **Figure 2.4.1 Hydrologic Features**

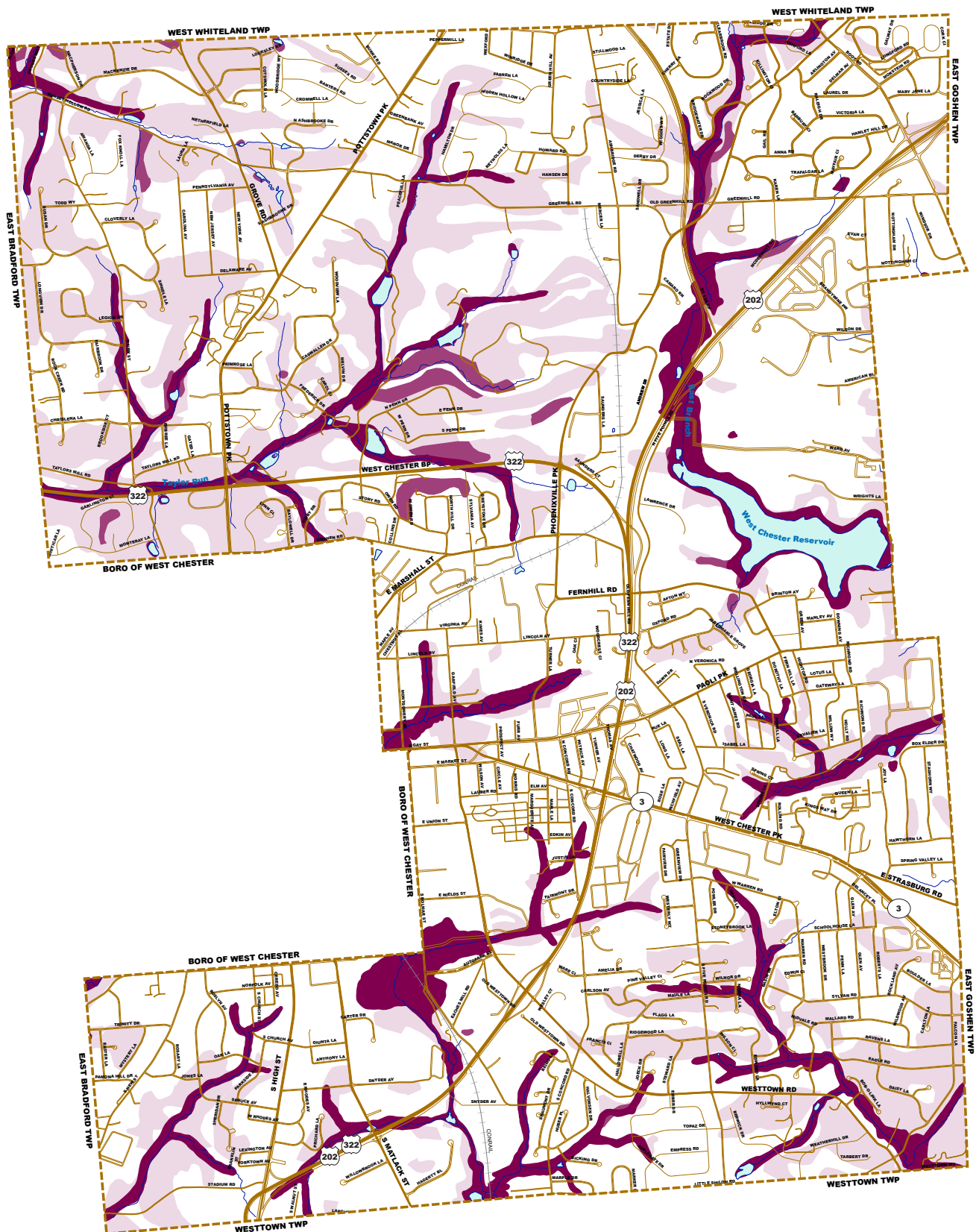




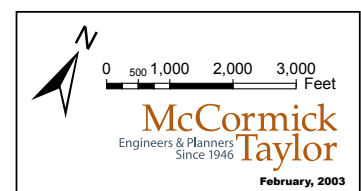
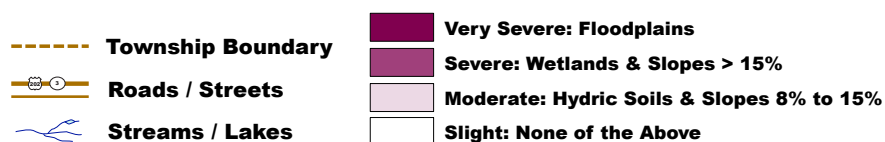
WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 2.4.2 Slope





WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE
Figure 2.4.3 Composite Natural Constraints



Chapter Two: Existing Conditions

SECTION 5: CULTURAL, HISTORIC, AND LANDSCAPE RESOURCES

West Goshen Township, like other areas of southeastern Pennsylvania, has a long history of human occupation and use. The prehistoric history of the township is characterized by successive periods of Native American occupation, primarily as an upland location for seasonal hunting, with small, short-term seasonal settlement sites.

West Goshen Township was settled by European colonists in the early eighteenth century. Over the three centuries of its historical development, the township has experienced several significant periods of change. The settlement period was characterized by prominent landholdings of largely self-sufficient farmsteads. During the eighteenth century, wheat was the principal commodity of exchange. During the nineteenth century, farms generally became smaller and more intensive, as a change to dairy farming occurred, influenced by the development of the railroads. The late-nineteenth and early-twentieth centuries saw a trend toward the growth of gentleman farms, as farm sizes again generally increased and farm ownership was often by wealthy families.

The township's development was strongly influenced by the character of the natural landscape. Most significant, perhaps, was the tillable agricultural soils and easy access to the major east-west roadways over which the westward expansion of Pennsylvania moved. West Goshen Township's historically-significant east-west regional roads gave rise to crossroads villages, especially along the West Chester Pike (PA Route 3).

Since World War II, the suburbanization of the township has resulted in the most dramatic change in the character and use of the landscape since the settlement period. In many ways, suburbanization has meant the wholesale loss of the agricultural landscape that evolved in West Goshen Township over the past three centuries. This change has resulted in the loss of historic landscape features, built historic resources such as houses, outbuildings, roads, and other site features, and prehistoric archeological resources.

Previous surveys, such as the Chester County Historic Sites Survey, begun in 1979, have provided a starting point for a comprehensive listing of structures and sites in the township. As part of this Comprehensive Plan update, a current list has been compiled. This list is shown in Table 2.5.1 and mapped in Figure 2.5.1. Because the listed properties were identified as part of a preliminary field survey of the township, the dates of construction on this list are approximate.

Chapter Two: Existing Conditions

Structures and sites identified in the Historic Resources list are often visually obscured by later and more intensive development. In fact, the most clear manifestation of earlier settlement in this area generally is the road pattern, consisting of historic pike routes and connecting inter-community roads. Of the crossroad villages that existed at various intersections along the West Chester Pike, very little remains. To a large extent, the historic structures at village and hamlet locations have been demolished and replaced with newer buildings.

In the less-intensely-developed parts of the township, scenic views are found, especially along Sunset Hollow Road, Westtown Road east of Five Points Road, North New Street, Little Shiloh Road and the Route 322 between Phoenixville Pike and the western township line.

TABLE 2.5.1
West Goshen Township Historic Resources

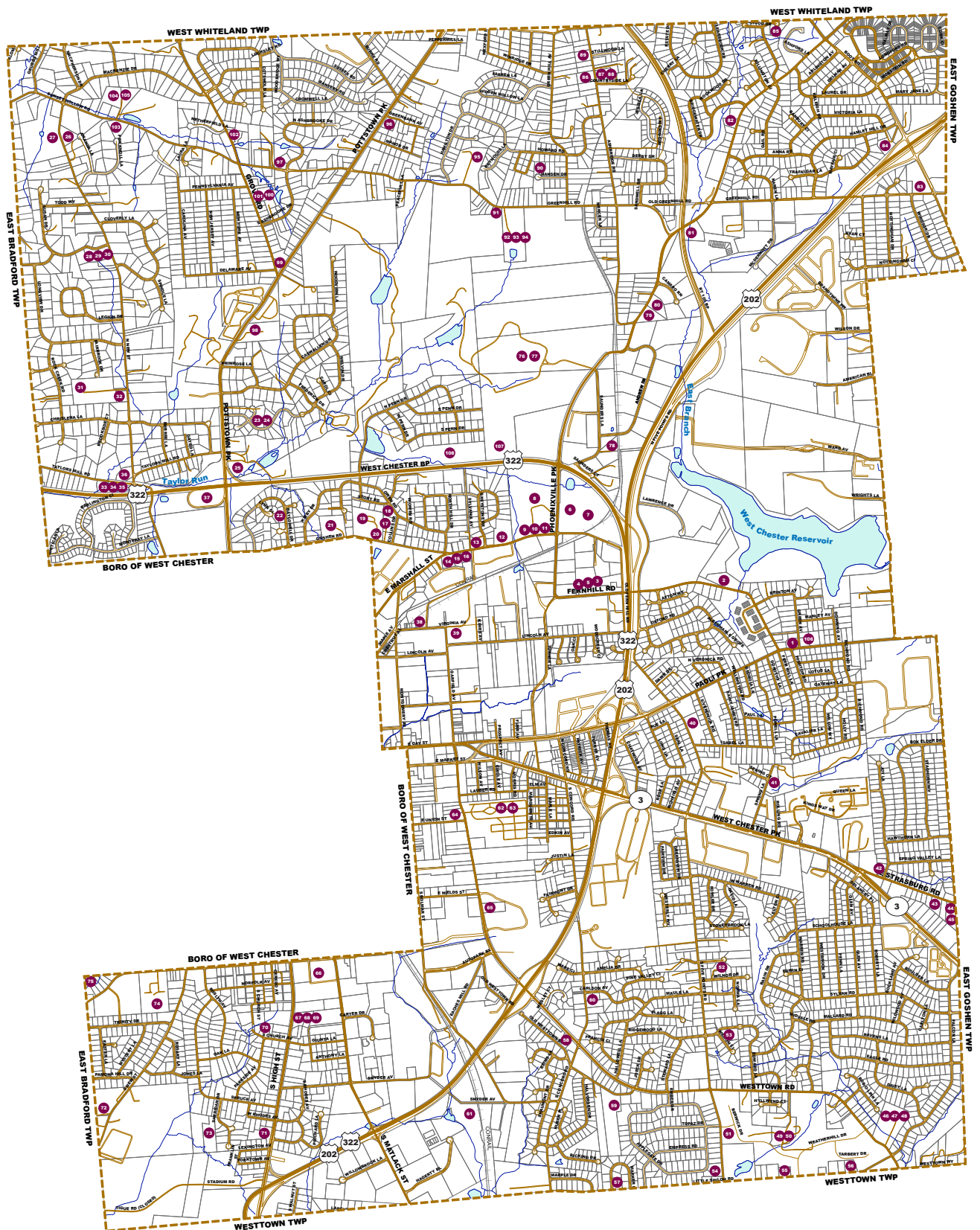
Site #	Historic Name	Location	Construction/Materials	Date Built
1	Silcox Farm	Fern Hill Road	Stone	1780
2	Mary Rogers House	Fern Hill Road	Serpentine	1806
3	WoodCrest House	Fern Hill Road	Serp. /Gone	1810
4	Wood Crest Barn	Fern Hill Road	Frame	1800
5	Weeping Beech Tree	Fern Hill Road		
6	Fern Hill Farm	Fern Hill Road	Serpentine /Gone	1850
7	Fern Hill Farm Barn	Fern Hill Road	Serpentine	1840
8	Passmore Farm	Phoenixville Pike	Stone	1840
9	Passmore Barn	Phoenixville Pike	Stone	1820
10	Springhouse Home	Goshen Road	Stone/Frame	1835
11	Tenant House	Goshen Road	Frame	1870
12	Bishop's Lodge	Goshen Road	Stone	1790
13	Greystone Gate House	Goshen Road	Stone	20th C.
14	William Marshall Barn	Goshen Road	Serpentine	1820
15	William Marshall House	Goshen Road	Serpentine	1821
16	Marshall Carriage House	Goshen Road	Serpentine	1830
17	Collins Mansion	Goshen Road	Serpentine	1732
18	Collins Spring House	Owen Road	Stone	1750
19	Allan Manor House	Goshen Road	Basalt Stone	1840
20	Allan Tenant House	Goshen Road	Frame	1880
21	Gavin Manor House	Goshen Road	Stucco/Stone	1776
22	Westcott House/Barn	Goshen Road	Serp/ Demolished	1865
23	Cornwell Barn	Crownpointe Road	Stone	1755
24	Cornwell House	Crownpointe Road	Stone	1760
25	Lownes -Taylor House	Pottstown Pike	Serpentine	1820
26	Spring House Remains	North New Street	Stone	1770
27	Snug Hollow	North New Street	Stone	1770
28	Carriage House	North New Street	Stone	1870

Chapter Two: Existing Conditions

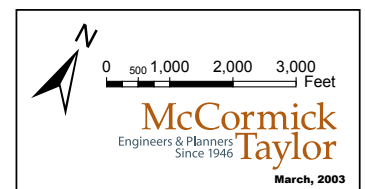
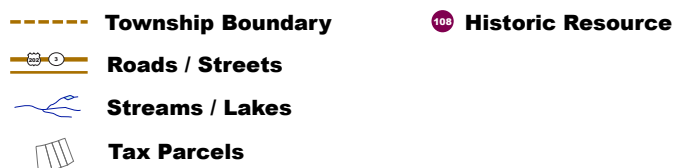
Site #	Historic Name	Location	Construction/Materials	Date Built
29	Dulin Barn	North New Street	Stone	1840
30	Jester House	North New Street	Stone	1780
31	Allewelt Prop	North New Street	Serpentine	1802
32	Worth House	1000 North New Street	Stone	1760
33	Sorghum Mill Barn	Taylors Mill Road	Stone	1732
34	Sorghum Mill	Taylors Mill Road	Stone	1860
35	Miller's House	Taylors Mill Road	Stone	1734
36	Madryn	Taylors Mill Road	Stone	1738
37	Miller's House	Taylor Mill/ Rt 100	Stone	1734
38	Coldren's Antiques	East Virginia	Brick	1820
39	The Knoll	Garfield Avenue	Brick	1870
40	Discovery Day School	Five Points Road	Stone	19th C.
41	Margarita Restaurant	Spring Lane	Stone	1799
42	Spring Knoll	Strasburg Road	Brick	1840
43	Bird in Hand Spring	Strasburg Road	Stone	1780
44	Bird in Hand Tavern	Strasburg Road	Stucco/Stone	1780
45	Bird in Hand Barn	Strasburg Road	Stone	1775
46	Freeman Farm House	Westtown Road	Stone	1818
47	Freeman Ice House	Westtown Road	Stone	1860
48	Freeman Barn Remains	Westtown Road	Stone	1800
49	Morrow Farm	Westtown Road	Stone	1800
50	Morrow Barn	Westtown Road	Stone	1800
51	Nussbaumer	Five Points Road	Stone	1776
52	Morrison Farm	1115 Wilnor Road	Stone/Stucco	1770
53	Wilson Farm	Wilson Dive	Stone	1790
54	Schwartz Farm	829 S. Five Points Road	Stone	1840
55	Westtown Inn	1913 Little Shiloh Road	Stucco/Stone	1830
56	Maiser	1001 Little Shiloh Road	Stone	1850
57	Detwiler	Little Shiloh Road	Stone	1772
58	House/Barn/Spring	765 Old Westtown Road	Stucco/Stone	1840
59	Farm Complex	806 Old Westtown Road	Stone/Stucco	1850
60	Frame House	609 South Concord Road	Stone	1850
61	Ringwood School	Snyder Avenue	Stone	1840
62	Green Mount Chapel	Westtown Road	Brick	1892
63	Green Mount Cemetery	Westtown Road		19th C.
64	Federal House			
65	McGinn Farm	East Union Street	Stone	19thC.
66	Matlack Farm	Westtown Road	Stone/Stucco	1770
67	Tanglewood	Rosedale Avenue	Stone/Stucco	18th C.
68	Wickersham House	South High Street	Stone/Stucco	19th C
69	Barn	South High Street	Stone	19th C.
70	House	South High Street	Stone	19th C.
71	Norris House	839 Church Avenue	Stone	1850
72	Mennonite Church	South High Street	Stone	1840
73	West Chester Univ.	South New Street	Stone	18th C.
74	Baker	900 Sheridan Drive	Stone	1837

Chapter Two: Existing Conditions

Site #	Historic Name	Location	Construction/Materials	Date Built
75	Hicksite Cemetery	Rosedale Avenue	Brick	1840
76	Faunbrook	Rosedale Avenue	Brick	1860
77	Greystone House	Phoenixville Pike	Stone	20th C.
78	Greystone Mansion	Phoenixville Pike	Stone	20th C.
79	Trego	1107 Saunders Lane	Stone/Stucco	19th C.
80	School House	Phoenixville Pike	Stone/Stucco	1879
81	Fry Farm House	1109 Phoenixville Pike	Brick	1870
82	Wilson Farm	Phoenixville Pike	Stone/Stucco	18th C.
83	Clemmer House	1129 Phoenixville Pike	Stone	1803
84	Andrien House	Greenhill Road	Stone/Brick	1825
85	McCardle	Boot Road	Stone/Stucco	19th C.
86	Cook House	1263 Knollwood Dr.	Stone/Stucco	1820
87	Ashbridge Train Depot	1234 Ashbridge Road	Stone	1750
88	Walsh House	1235 Ashbridge Road	Stone	1823
89	Walsh Barn	1235 Ashbridge Road	Stone/Frame	1820
90	Ulmann House	1320 Ashbridge Road	Stone/Stucco	1840
91	Hansen House	Hansen Road	Stone/Stucco	1850
92	Hocker House	320 Greenhill Road	Frame	1860
93	Jerrehian Prop.	322 Greenhill Road	Stone/Stucco	1780
94	Jerrehian Barn	322 Greenhill Road	Stone	1770
95	Jerrehian Carriage	322 Greenhill Road	Stone	1770
96	Sager Farm	245 Greenhill Road	Stone/Stucco	1750
97	March Farm	2 Greenbank Road	Stone/Frame	1830
98	Burbank House	127 Greenhill Road	Stone	1750
99	Oaklands Chapel	Pottstown Pike	Brick	1860
100	Grove School	Grove Road	Stone	1870
101	Log House	1129 Grove Road	Log	1732
102	Barn	1131 Grove Road	Stone/ Frame	1730
103	Maher House	1209 Grove Road	Stone/Stucco	1830
104	Pennington Farm	Sunset Hollow Road	Stone/Frame	1860
105	Stringfellow Farm	401 Sunset Hollow Road	Brick	1784
106	Stringfellow Barn	401 Sunset Hollow Road	Stone	1775
107	Short Line Depot	Paoli Pike	Frame	20thC
108	Serpentine Quarry	Rt. 322 By-Pass		
109	William Marshall Grounds		Protected / Endangered Flora	
109	Garfield Cemetery	Chestnut Grove		
110	Paoli Pike Historic District	Paoli Pk. From E. to W. township line		20thC



WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE **Figure 2.5.1 Historic Resources**



Chapter Two: Existing Conditions

SECTION 6: POPULATION, HOUSING, AND EMPLOYMENT

Population forecasts are considered an essential part of planning for future growth, in that they can be translated into approximations of the future need for housing, community facilities, and other forms of development. Many factors are taken into account in making population forecasts, but these factors are constantly subject to change. The longer the time period of the forecasts and the smaller the present population, the less reliable the forecasts may turn out. For instance, forecasts for individual municipalities are less valid than are those for a large region or for the entire nation, and five-year forecasts usually are more valid than fifteen- or twenty-year forecasts.

Population Trends for West Goshen Township & Vicinity

Recent population trends for West Goshen Township, West Chester Borough, East Goshen Township, Westtown Township, West Whiteland Township, the six-municipality area including all of the preceding communities, and Chester County are compared in Tables 2.6.1 and 2.6.2.

Chester County was the fastest-growing among the five Philadelphia-area counties in Pennsylvania over the thirty-year period from 1970 to 2000. The six-municipality area of which West Goshen Township is a part grew at a greater pace to that of the county over the same period, with Chester County adding 155,755 residents (56.1%) and the six-municipality area growing by 45,103 inhabitants (97.3%). West Goshen Township, on the other hand, grew much more significantly than either the county or the six-municipality area, adding 14,079 residents (219 %) between 1970 and 2000. By 2000, West Goshen Township had 20,495 residents.

Table 2.6.1
West Goshen Township and Surrounding Municipalities
Population Trends, 1970 - 2000

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
West Goshen Township	6,416	16,164	18,082	20,495
West Chester Borough	19,301	17,435	18,041	17,861
East Bradford Township	3,260	3,219	6,440	9,405
Westtown Township	5,069	6,774	9,937	10,352
East Goshen Township	5,138	10,021	15,138	16,824
West Whiteland Township	7,149	9,581	12,403	16,499
6 Municipality Area	46,333	63,194	80,041	91,436
Chester County	277,746	316,660	376,396	433,501

Chapter Two: Existing Conditions

Table 2.6.2

**West Goshen Township and Surrounding Municipalities
Population Change, 1970 - 2000**

	1970-80		1980-90		1990-2000	
	Number	Percent	Number	Percent	Number	Percent
West Goshen Township	9,748	151.9%	1,918	11.9%	2,413	13.3%
West Chester Borough	(1,866)	-9.7%	606	3.5%	(180)	-1.0%
East Bradford Township	(41)	-1.3%	3,221	100.1%	2,965	46.0%
Westtown Township	1,705	33.6%	3,163	46.7%	415	4.2%
East Goshen Township	4,883	95.0%	5,117	51.1%	1,686	11.1%
West Whiteland Township	2,432	34.0%	2,822	29.5%	4,096	33.0%
6 Municipality Area	16,861	36.4%	16,847	26.7%	11,395	14.2%
Chester County	38,914	14.0%	59,736	18.9%	57,105	15.2%

Age Characteristics

The population of West Goshen Township is aging (Table 2.6.3). According to Bureau of the Census statistics, the median age for West Goshen Township residents rose more than twenty-two percent from 1980 to 2000, increasing from 29.8 years to 36.6 years. In 1980, 26.5% of the township's population was forty-five years of age or older, but by 1990 this figure had increased to 31% and by 2000 had hit 34.6%.

Table 2.6.3

**West Goshen Township and Surrounding Municipalities
Population by Age Groups, Median Age**

Age Groups	1980		1990		2000	
	Number	Percent	Number	Percent	Number	Percent
0-4	1,138	7.0%	1,459	8.1%	1,493	7.3%
5-17	3,607	22.3%	3,049	16.9%	4,253*	20.7%
18-24	1,951	12.1%	1,725	9.5%	1,051**	5.1%
25-44	5,192	32.1%	6,267	34.7%	6,603	32.2%
45-64	3,099	19.2%	3,590	19.9%	4,887	23.8%
65-74	729	4.5%	1,221	6.8%	1,153	5.6%
75+	448	2.8%	771	4.3%	1,055	5.2%
TOTALS	16,164	100%	18,082	100%	20,495	100%
Median Age	29.8 years		34.0 years		36.6 years	
*5-19 years of age						
** 20-24 years of age						

Housing Units

According to the 2000 Census, West Goshen Township had 7,703 dwelling units within its boundaries in that year. This figure represented an increase from 6,802 dwelling units in 1990. The growth rate for dwelling units, 13.2% from 1990 to 2000, is on par with the 13.3% population growth rate for the period from 1990 to 2000. New housing construction averaged about ninety units per year between 1990 and 2000.

West Goshen Township is a community with a mix of dwelling types (Table 2.6.4). In 2000, 70.9% of housing units in the township were single-family detached units, 6.4% of units were of the single-family attached (twin or 'townhouse') variety, 22.1% were of the multi-family ('apartment') type, and 0.7% of units were mobile homes.

Table 2.6.4
West Goshen Township
Housing Unit Inventory

Structural Type	1990			2000	
	Number	Percent		Number	Percent
Single-Family Detached (Units)	4,610	67.8%		5,458	70.9%
Single-Family Attached (Units)	263	3.9%		492	6.4%
Two to Four Family Buildings (Units)	101	1.5%		140	1.8%
Five or more Family Buildings (Units)	1,745	25.7%		1,560	20.3%
Mobile Homes (Units)	83	1.2%		53	0.7%
TOTALS	6,802	100.0%		7,703	100.0%
Total Occupied Housing Units	6,483			7,554	
Total Vacant Housing Units	319			149	

Population Forecasts

Municipal population forecasts for 2025 were prepared by the Delaware Valley Regional Planning Commission (DVRPC) based on control totals for Chester County as a whole. For West Goshen Township, a 2010 population of 21,760 and a 2025 population of 23,110 were forecast in March 2000. The DVRPC forecasts are shown as *Alternative 1* in Table 2.6.5.

The table's *Alternative 2* takes the actual annual growth rate for the township from 1990 to 2000, around 1.3 percent per year, and projects this rate out over twenty-five years, from 2000 to 2025, on West Goshen Township's starting population of 20,495 (the 2000 Census figure). The results show that around 27,145 people would live in West Goshen Township by the year 2025.

Alternative 3 takes the actual annual growth rate for the six-municipality area (referred to earlier in this Section) from 1980 to 2000, 4.5% per year, and projects this rate out over twenty-five years, from 2000 to 2025, on West Goshen Township's starting population of 20,495 (the 2000 Census figure). This projection reveals that around 43,545 people would live in West Goshen Township by the year 2025.

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In *Alternative 4*, the actual annual growth rate for the seven-municipality area from 1990 to 2000, 1.5% per year compounded annually, is projected out over twenty years, from 2000 to 2025, on West Goshen Township's starting population of 20,495. The resultant 2025 population for the township is about 28,170 people.

Table 2.6.5
West Goshen Township
Alternative Population Forecasts

Alternative	1990	2000	2010	2020	2025	2000-2025	
						Number	Percent
1. DVRPC Forecast (March 2000)	18,082	20,495	21,760	22,590	23,110	2,615	13.0%
2. Township Growth Rate, 1990-2000 (1.3%/yr.)	18,082	20,495	23,155	25,815	27,145	6,650	32.4%
3. 6-Municipality Growth Rate, 1980-2000 (4.5%/yr)	18,082	20,495	29,715	38,935	43,545	23,050	112.5%
4. 1990-2000 County Growth Rate (1.5%/yr)	18,082	20,495	23,565	26,635	28,170	7,675	37.4%

Housing Units to be Constructed

Based on the forecasts and projections discussed above, including a prospective township 2025 population of between 23,000 and 43,500 residents, an estimate of the number of housing units to be constructed over the planning period has been formulated (Table 2.6.6). Three rates of population growth are used; a “low” estimate of 23,000 residents, a “medium” estimate of 25,500 residents, and a “high” estimate of 28,000 residents.

The table assumes that 98.8 percent of the population will live in households, that the average number of persons per household will be 2.5, that vacancies will comprise 3.5 percent of the total housing stock, and that there will be a modest need to replace some of the existing housing stock over the planning period. (Figures used are consistent with the Federal Census for West Goshen Township for 1980, 1990, and 2000 and area population and housing trends.)

Applying the method used in the table, the total number of new housing units to be constructed in the township from 2000 to 2025, a twenty-five year period, could range from 1,172 to 3,064, with about 2,120 new units corresponding to a “medium” rate of population growth. This latter figure translates into about eighty-five units per year. Based upon the “medium” population forecast, the township may expect construction of new housing units over the planning period at about the same pace as recent history.

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Table 2.6.6
West Goshen Township
Housing Units to be Constructed, 2000-2025

	"Low"	"Medium"	"High"
Population Projection, Year 2025	23,000	25,500	28,000
Population in Households (98.8%)	22,724	25,194	27,664
Persons per Household	2.7	2.7	2.7
Occupied Housing Units	8,416	9,331	10,246
Vacant Units (3.5%)	305	338	372
Total Housing Units Required	8,721	9,669	10,618
Existing Stock, Year Round Housing Units, 2000	7,703	7,703	7,703
Net Additions to Housing Stock	1,018	1,966	2,915
Replacement of Existing Stock (3%)	231	231	231
Conversions (1%)	-77	-77	-77
Total Housing Units to be Constructed, 2000-2025 (25 years)	1,172	2,120	3,069
Average Number of Housing Units to be Constructed per Year (2000-2025)	47	85	123

Employment Trends and Forecasts

Employment trends and forecasts are important in planning for future growth. While population forecasts and housing data can be translated into approximations of the future need for housing units and land for new housing construction, employment forecasts for a given locale may be converted into estimates of potential demand for land for new commercial and industrial establishments. Both kinds of forecasts may give clues as to the future need for varying kinds of community facilities and services.

Unfortunately, employment data for smaller geographic areas are not as readily available as population data. While the U.S. Department of Commerce, Bureau of the Census conducts a Census of Business every five years, it does not cover all economic sectors and the data it reports are riddled with gaps because of the disclosure rules under which it operates. A more complete accounting of employment patterns has recently become available from the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce, but the county is the smallest unit for which those data are available. The Pennsylvania Department of Labor receives highly-detailed employer and employee information in the course of administering an unemployment insurance fund, but the agency will not release information for municipalities with populations less than 25,000.

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Employment forecasts have been completed by the Delaware Valley Regional Planning Commission. DVRPC forecasts are based on the previously-mentioned BEA data and were reviewed with a panel of economists from the Delaware Valley region. However, forecasting future employment is more difficult than population due to many factors influencing employment at the national, regional and local levels. Unlike population changes, which generally tend to be more gradual and relatively predictable, employment forecasts may vary widely due to broad forces such as foreign trade, world economics, politics, military conflicts, national monetary policies, demographic trends, and social forces. Local factors such as labor force availability, land prices, transportation networks, and local political climate also play an important role in determining employment levels. Sources of current employment data often vary. At the federal level, the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), and the Bureau of Census all provide data on current employment; however, the methods and sources of the data vary among different agencies, producing different sets of results.

The Delaware Valley Regional Planning Commission estimates that the number of persons employed in establishments in West Goshen Township in 2000 was 18,050, based on Bureau of the Census data. DVRPC last undertook municipal employment forecasts in March 2000. At that time, DVRPC forecast that employment in West Goshen Township would reach 19,500 by 2010, 20,500 in 2020, and 21,000 by 2025.

Table 2.6.7
West Goshen Township
Employment Forecast

						2000-2025	
	1990	2000*	2010	2020	2025	Number	Percent
DVRPC Forecast (March 2000)	14,921	18,050	19,500	20,500	21,000	2,950	16.3%
*Forecast based on 1997 estimate of 17,525							

These numbers underscore just how difficult it is to forecast employment trends for townships. The impact of the arrival of one significantly-sized development in West Goshen Township could propel the number of local employees much higher than the increase of about 2,950 forecast by DVRPC for the planning period.

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SECTION 7: HOLDING CAPACITY

The analysis of population and employment trends and projections in Section 6 is intended, in part, to provide some rough estimates of the demand for land for new residential and commercial uses over the planning period. These estimates of demand for land may be compared to the supply or *holding capacity* of vacant or otherwise easily-developable parcels in the community.

A Holding Capacity map has been prepared (Figure 2.7.1), indicating *developable* and *redevelopable* lands. Developable land refers to areas generally unencumbered by existing development, whereas redevelopable land indicates areas deemed generally susceptible to change in use. Developable and redevelopable land areas were determined primarily on the basis of the survey of existing land use (see Section 2 of this chapter), although a number of other factors were also considered, in particular:

- Land constrained for development on account of the presence of floodplains, wetlands, or steep slopes; and
- Areas deemed not developable on account of deed restrictions.

As established by the holding capacity analysis, there are approximately 886 acres of developable land and approximately 174 acres of redevelopable land, which results in a total of 1,060 acres of land in West Goshen Township identified for potential development. This acreage is 13.8% of the total township area. A portion of this total acreage, around 142 acres, is constrained for development by the presence of floodplains, wetlands, and steep slopes.

The range of total population forecast for West Goshen Township in the year 2025 (made in Section 6) is between 23,000 and 28,000 residents. These figures translate into a demand for between 1,172 and 3,069 new housing units over the twenty-five year period from 2000 to 2025. Based on recent land consumption trends for residential development in West Goshen Township (averaging one-half acre per dwelling unit), the forecast 2025 population of 23,000 to 28,000 people would therefore correspond to a demand for 586 to 1,534 acres of land for new residential construction from 2000 to 2025. For the “medium” rate of population growth cited in Section 6, corresponding to 25,500 inhabitants and 2,120 new housing units, 1,060 acres of land would be required.

The employment forecast for West Goshen Township in the year 2025 (made in Section 6) is 21,000 employees, or around 10,500 new jobs over the twenty-five year period from 2000 to 2025. Assuming a distribution of the new jobs so that one-third were in office employment (at forty jobs per acre),

Chapter Two: Existing Conditions

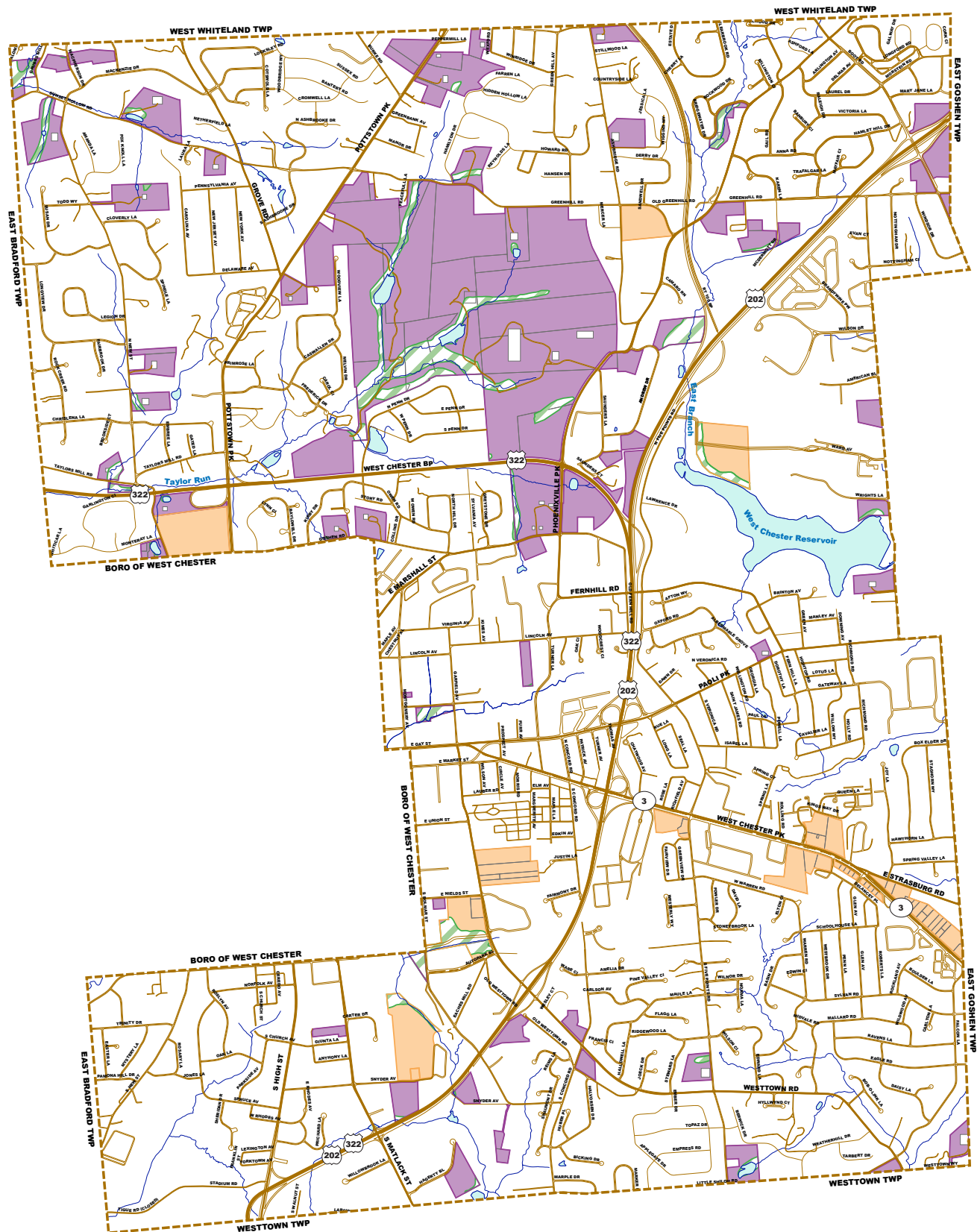
one-third were in retail trade (at ten jobs per acre), and one-third were in the industrial sector (at fifteen jobs per acre), then some 670 acres of land for new commercial and industrial development would be needed.

The total land area demanded for new residential and non-residential uses might therefore be around 1,730 acres, a figure greater than the available acreage as determined by the holding capacity analysis. One conclusion might be that a limited supply of available land for new development may constrain it. But given the limited supply of land, there may be a future increase in redevelopment activity taking place in the township.

The holding capacity analysis makes many assumptions concerning which parcels may be available for development. Parcels (held by large land holders such as major institutions) could become available for development over the planning period.

In general terms, one could probably say that the supply of land for new development will not be able to satisfy the higher end of the ranges of estimated total land area required to accommodate additional population and jobs in West Goshen Township from 2000 to 2025. It is possible that the township, in effect, will run out of developable land during the planning period.

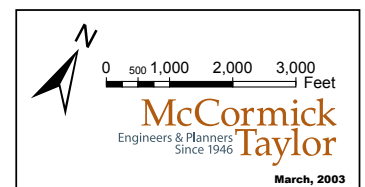
The holding capacity analysis may be thought to imply that the township is at least approaching a level of development (say, before the year 2025) that is sometimes referred to as a “build-out” of the municipality. But the notion of “build-out” should also be regarded with caution. Recent development trends in more highly-developed municipalities in the region suggest that the idea of an ultimate build-out of the community, beyond which new development will be impossible because there will not be any more room for new construction, is somewhat illusory. Land development in West Goshen Township will continue to be demand-generated, with the development of mostly presently-vacant land over the planning period gradually being substituted by redevelopment of mostly already-in-use lands as the community continues to mature during the planning period.



WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 2.7.1 Holding Capacity

- Township Boundary
- Developable Land
- Roads / Streets
- "Redevelopable" Land
- Tax Parcels
- Constraints Area (Floodplains & Steep Slope)



March, 2003

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SECTION 8: CIRCULATION

A region's transportation system has a direct influence on the location and intensity of development. For West Goshen Township, the establishment of early area transportation routes and improvements to the road network serving the municipality over the years have been important determinants for growth.

One of the region's most important highways, US Route 202 crosses through the middle of township, providing superb regional access to this locale and spurring development in West Goshen Township and adjacent municipalities. US Route 322 serves as the West Chester Bypass, diverting through traffic away from the borough. West Goshen Township is also traversed by PA Route 3 (West Chester Pike), an important east-west regional highway and Paoli Pike which are also the township's main commercial streets. PA Route 100, Pottstown Pike and Phoenixville Pike are three major roads in the northern part of the township. South High Street and South Matlack Streets are roads in the southern portion of the township that start in West Chester Borough and go through the township. Other important inter-community roads include Grove Road, Greenhill Road and Boot Road

To the local network have been added many minor streets that have been constructed over the last few decades in conjunction with new residential developments. In addition, new roadways including Ward Avenue were built in conjunction with construction of office complexes in the QVC Studio and Brandywine Industrial Parks.

This circulation analysis provides a description of the basic road network for West Goshen Township. The jurisdictional and functional classifications of the various segments of the road network and traffic demands on major roads are of particular concern. The analysis focuses on those roadways that provide for continuity of travel within and through the township as opposed to subdivision streets that have the primary purpose of providing access to residences (Figure 2.8.1).

Functional Classification

Road systems comprise a hierarchy of highways and streets that perform different functions. The major classifications are expressway, arterial, collector, and local roads. Expressways are limited-access highways designed to move large volumes of through traffic at high speeds. At each succeeding level in the hierarchy, traffic volumes and speeds decrease, average trip

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lengths become shorter, and there is increased access to abutting properties.

The most recent road functional classification for the township was made as part of work on the 1994 Functional Classification Study by the West Chester Regional Planning Commission. Roadways in West Goshen Township were classified as follows:

Roadway	Functional Classification
US Route 202	Limited Access Highway
Route 100 Bypass	Limited Access Highway
South High Street	Major Arterial
PA Route 3 (West Chester Pike)	Major Arterial
Portions of US Route 322	Major Arterial
Pottstown Pike	Major Arterial
Paoli Pike	Minor Arterial
Grove Road	Major Collector
Greenhill Road	Major Collector
Boot Road	Major Collector
Phoenixville Pike	Major Collector
East Marshall Street	Minor Collector
South Five Points Road	Minor Collector
Westtown Road	Minor Collector
Nields Street	Minor Collector
South Matlack Street	Minor Collector

Jurisdictional Classification

Most of the major roads in West Goshen Township are State Highways. In addition to US Route 202, US Route 322, PA Route 3 (West Chester Pike) and Pottstown Pike, the following routes are under the jurisdiction of the Commonwealth of Pennsylvania and are controlled and maintained by the Pennsylvania Department of Transportation (PennDOT):

- Boot Road
- E. Marshall Street
- Fern Hill Road
- Garfield Avenue (Lincoln Avenue to Paoli Pike)
- Goshen Road (East of North Hills)
- Greenhill Road
- Lincoln Avenue

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- Montgomery Avenue
- Paoli Pike
- Phoenixville Pike (Route 29)
- S. Five Points Road (from Westtown Road to Little Shiloh Road)
- South High Street
- Strasburg Road
- Westtown Road

Private roads in the township consist of the following:

- Applegate Drive
- Ember Drive
- Empress Drive
- Furr Avenue
- Gated Road (off Taylor's Mill Road)
- Hicks Road
- Kimes Lane (off Lincoln Avenue by Schramm's)
- Llewlyn Circle (off Lincoln Avenue)
- Oak Circle (off Lincoln Avenue)
- Peaceful Lane
- Pine Circle (off Lincoln Avenue)
- Prospect Avenue
- S. Walnut Street
- Topaz Drive
- Thomas Avenue
- Turner Avenue
- Turner Lane (south from Paoli Pike to West Chester Pike)
- Woodcrest Circle (off Lincoln Avenue)
- Wrights Lane
- Ward Avenue

With the exception of these private roads, all other roadways in the municipality are under the jurisdiction of West Goshen Township. In total, there are about eighty miles of Township Roads and 40.8 miles of State Highways in the township.

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Traffic Volumes

Average Daily Traffic (ADT) counts that have been compiled by the Chester County Planning Commission (CCPC) are also shown on Figure 2.8.1. Counts were taken over a number of years by the Delaware Valley Regional Planning Commission (DVRPC) and PennDOT and are not comprehensive; some routes have recent counts, other roads have only very old counts, and some roadway links have no counts at all.

The highest volumes of traffic in the township, by far, have been experienced on US Route 202 near all of the township's interchanges, with ADTs ranging from 49,000 to 67,000 vehicles per day in the late 1980s. Traffic on PA Route 3 (West Chester Pike) east of US Route 202 was in the 37,000 to 39,000 range in the late 1980s and early 1990's.

Other significant ADT's were recorded on Paoli Pike, Pottstown Pike, Boot Road and South High Street. The traffic counts for Paoli Pike east of US Route 202 averages from 17,000 to 20,000 in the late 1980s and early 1990s. The ADT's for PA Route 100 north of Route 322 (West Chester Bypass) averaged from 15,000 to 22,000 in the early –mid 1990s. Boot Road northwest of the US Route 202 interchange had traffic counts in the order of 13,000 in 1997. South High Street south of West Chester Borough line had an ADT in 1995 of 22,000.

Public Transportation

The Southeastern Pennsylvania Transportation Authority (SEPTA) operates three bus routes (Figure 2.8.2). Also Krapf Coaches operates one private bus route in the township. In addition to bus service, there is one Regional Rail line, the R-5, which can be used only by means of stations in nearby municipalities. Residents and employees in the township do make use of SEPTA's R-5 Regional Rail service by means of stations on this line in Exton and Whitford and can then reach Center City Philadelphia, Doylestown, or west to Thorndale on this commuter rail line. Although farther from the township than the Exton and Whitford stations, Malvern and Paoli are also utilized by residents of West Goshen Township due to their greater frequency of service. From Paoli, riders can board Amtrak trains to Harrisburg and New York City, which travel on the same track way as the R-5 Regional Rail service in the western suburbs of Philadelphia.

The SEPTA bus routes consist of three regular routes. Route 92 (West Chester to Exton Square Mall) provides service in the township along East

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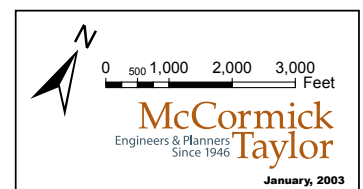
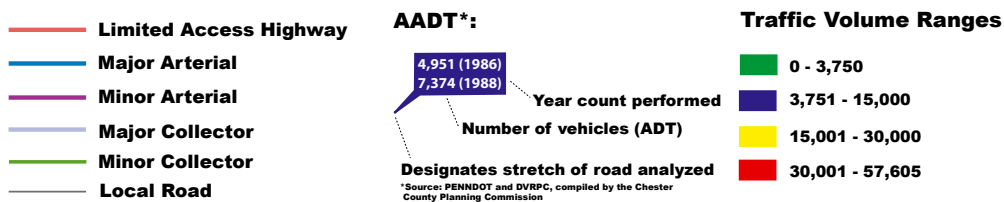
Marshall and Phoenixville Pike. Service is hourly from 6:00 a.m. to 9:00 p.m. weekdays and hourly from 6:00 a.m. to 9:00 p.m. Saturdays. There is no Sunday service.

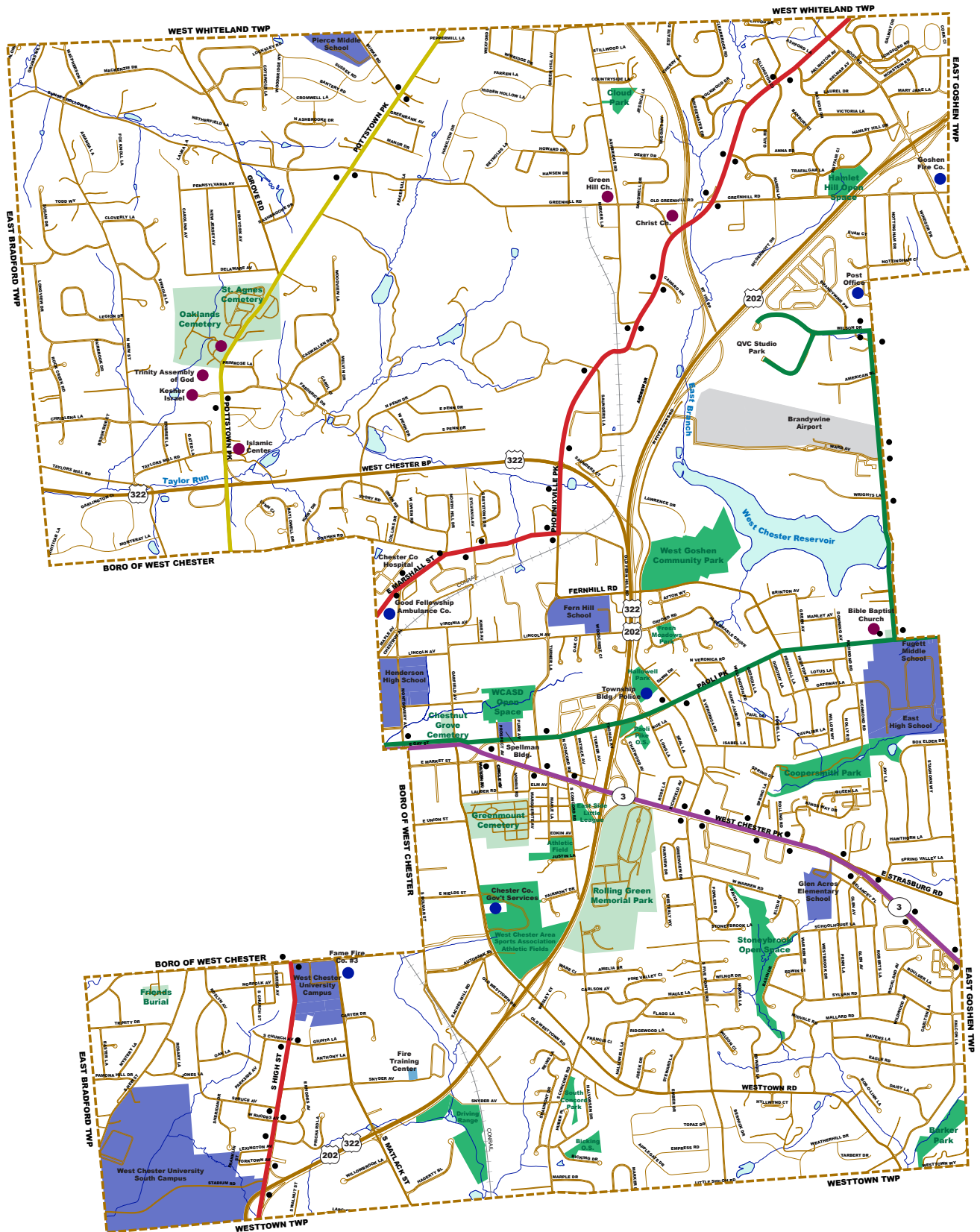
Route 314 (Larkins Corner to Goshen Corporate Park via Painters Crossroads and West Chester) provides service in the township along Paoli Pike, Airport Road and enters the QVC Studio Park at Wilson Road. Service is hourly from 6:00 a.m. to 6:00 p.m. There is no weekend service.

Route 104/119 (69th Street to West Chester via Newton Square) provides service in the township along Route 3 (West Chester Pike). Service is hourly from 4 a.m. to 1 a.m. on weekdays, with service twice hourly during peak times, and hourly from 5 a.m. to 1 a.m. on weekends.

In addition to the SEPTA Routes, Krapf Coach has a Route A that serves ROUTE 100 (Pottstown Pike) Service is generally 1 to 1 ½ hours for weekdays and weekends.

WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE
Figure 2.8.1 Road Hierarchy and Traffic Counts

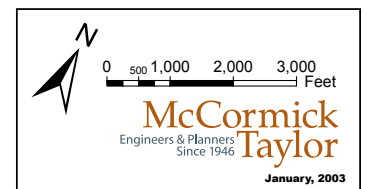




WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 2.8.2 Public Transportation

- Township Boundary
- SEPTA Route 92
- Krapf A Route
- SEPTA Route 104 / 119
- SEPTA Route 314
- Roads / Streets
- Streams / Lakes
- Bus Stop



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SECTION 9: COMMUNITY FACILITIES

Township and Other Community Facilities and Services

West Goshen Township provides a wide range of services to its residents and visitors. West Goshen Township has its own police force, consisting of twenty-seven full-time officers. These numbers contrast with those from the period of the preparation of the last Comprehensive Plan, 1977, when there were sixteen. Currently the police use eleven vehicles, compared to six in 1977.

The municipality has a Township and Police Building, on Paoli Pike, to house municipal administrative functions, including the township police. The township also owns a Pistol Range for use by the township police, on South Concord Avenue. The township's Public Works complex is on the grounds of the Township and Police Building.

West Goshen Township is served by four fire companies and two ambulance services. The West Chester Fire Department provides firefighting service to half of the township from three fire company facilities on Matlack Street. The company consists of volunteer fire fighters and currently uses thirteen vehicles. Goshen Fire Company provides fire fighting service to part of the township from the fire company facility on Park Avenue and Green Hill Road. The company consists of paid and volunteer fire fighters as well as EMT's and currently uses ten vehicles. Additional ambulance service is provided to the township by Good Fellowship Ambulance Club on Montgomery Avenue. This service uses paid and volunteer staff and has six ambulances. There is also a fire training center owned by the West Chester Fire Department located on Snyder Avenue.

One hospital, Chester County Hospital, is located in the township on East Marshall Street.

The main branch of the Chester County Public Library is located in Exton. The West Chester Public Library, located in the borough, provides the closest services available to West Goshen Township residents within the Chester County Public Library system.

Residences and businesses in the township receive trash collection services through private contractors, although the residential service is contracted by and paid for by the municipal government. Currently, 6,021 households are served by curbside pickup with trash being picked up twice per week, recycling being picked up once per week, and bulk trash being picked up once

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per month. The average amount of trash being picked up is 190 tons per week and is taken to the Chester Landfill, which is the county mandated drop-off point.

In addition to the municipal government, West Goshen Township also houses the Chester County Government Services Building, located on Westtown Road. This building houses various administrative services for the county as well as district court, Penn State Extension and United States Department of Agriculture Services.

Parks

The township owns several parcels of parkland and open space. Facilities are enumerated in Table 2.9.1 and illustrated in Figure 2.9.1.

TABLE 2.9.1
West Goshen Township Park & Open Space Inventory

<u>Type</u>	<u>Name</u>	<u>Acres</u>
Community Park	Barker Park	9.17
Community Park	Coopersmith Park	19.76
Community Park	West Goshen Community Park	37.81
Neighborhood Park	South Concord Park	2.42
Neighborhood Park	Hallowell Park	7.26
Neighborhood Park	Fresh Meadows Park	2.22
Neighborhood Park	Cloud Park	3.79
Open Space Area	Bicking Park	3.62
Open Space Area	Stoneybrook Park	18
Open Space Area	Paoli Pike Park	2.36
Open Space Area	Hamlet Hill	6.88
	Total	113.29

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Schools

The West Chester Area School District encompasses West Goshen Township, as well as West Chester Borough, East Bradford Township, East Goshen Township, West Whiteland Township, Westtown Township, Thornbury Township (Chester County) and Thornbury Township (Delaware County). District facilities in West Goshen Township include Henderson High School on Montgomery Avenue, Fugett Middle School and East High School on Ellis Lane, Fern Hill Elementary School on Fern Hill Road, Glen Acres Elementary School on Delancey Place and Pierce Middle School on Burke Road (Figure 2.9.1). The district administration offices are also located in the township, on Paoli Pike.

District facilities are continuing to be overhauled. Henderson High School, East High School and Fugett Middle School are all in the process of having improvements to their facilities. The District is also planning to build an additional high school, Bayard Rustin High School, in Westtown Township.

In addition to the public school system, West Goshen Township is home to independent schools including West Chester Christian School on Paoli Pike, Chesterbrook Academy on Ward Avenue and Chesterbrook Academy Elementary School on McDermott Avenue.

Private Facilities

West Goshen Township contains a number of significant private facilities.

Private open space includes the following facilities:

- East Side Little League Fields on South Concord Avenue
- West Chester Area School District Open Space on the grounds of the Spellman Building on Paoli Pike
- Athletic Fields on South Concord Road
- Driving Range on Hagerty Boulevard south of US Route 202.

In addition to the open space mentioned above, the sports fields located on the property of the county's Government Services Center are leased to the West Chester Area Sports Association.

Religious facilities in the township include the Islamic Center on Pottstown Pike, Kingdom Hall on Phoenixville Pike, Trinity Assembly of God on Pottstown Pike, Kesher Israel on Frederick Drive, Christ Church on Greenhill

Chapter Two: Existing Conditions

Avenue, Greenhill Chapel on Greenhill Avenue, Bible Baptist Church on Paoli Pike, West Chester Seventh Day Adventist Church on South High Street, Newman Catholic Center on South New Street, Living Faith Church on South High Street, St. Matthew's Assembly of God, and St. Paul's Baptist Church on Hagerty Boulevard.

Water Service

Water supply for West Goshen Township consists of both central ("piped") water and on-site wells. Central water service is provided by Philadelphia Suburban Water Company (PSW). The service area includes all of the developed portions of the municipality.

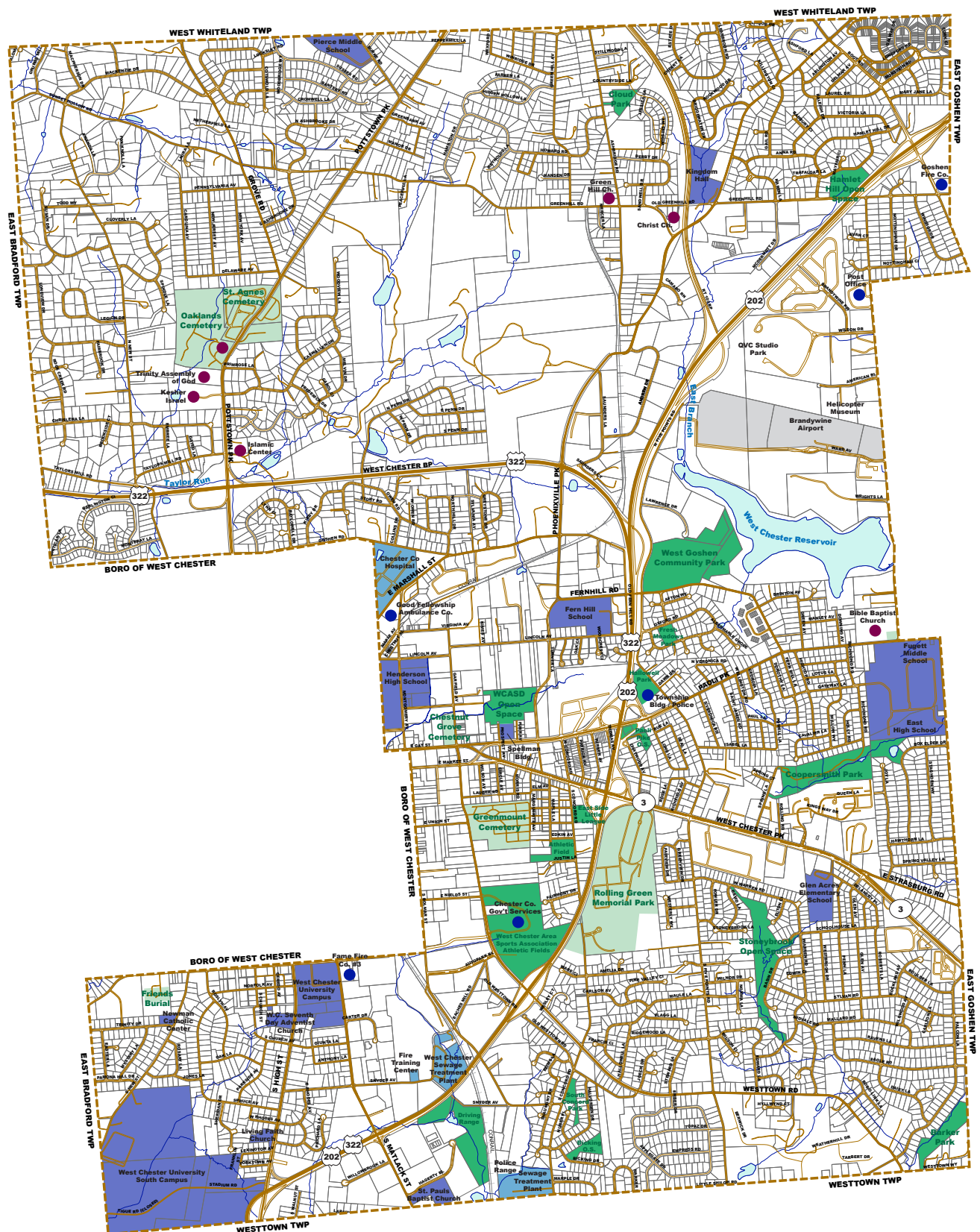
PSW operates a very large, integrated regional system that utilizes numerous surface water and groundwater sources. PSW operates 37 wells and withdraws water from Pickering Creek (near Phoenixville), Brandywine Creek, Crum Creek, Chester Creek, Ridley Creek, Schuylkill River, and Susquehanna River. The West Chester Reservoir, located in West Goshen Township, is also part of the PSW system. Township customers may receive water from a variety of sources within the system at various times of the day, month, or year. According to PSW, there is sufficient capacity in their system to serve the future needs of the township. At properties where PSW-supplied water is not available or not utilized, on-site wells provide the water source.

Sewer Service

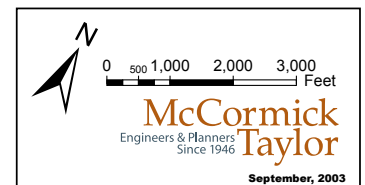
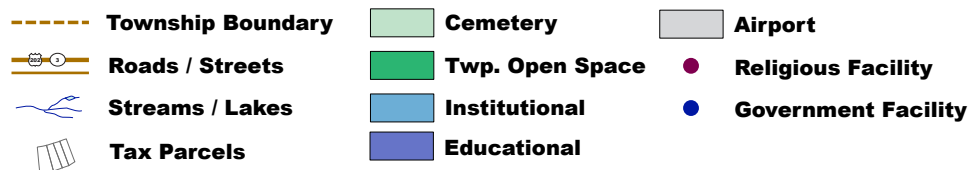
Wastewater disposal in West Goshen Township consists of the central West Goshen Sewer Authority system and private-residence, on-lot systems (Figure 2.9.2). Flows go from ten pumping stations located in the township to the Sewer Authority plant located at South Concord Road. In addition to serving West Goshen Township, the Sewer Authority also accepts flows from East Goshen, Westtown and West Whiteland Townships.

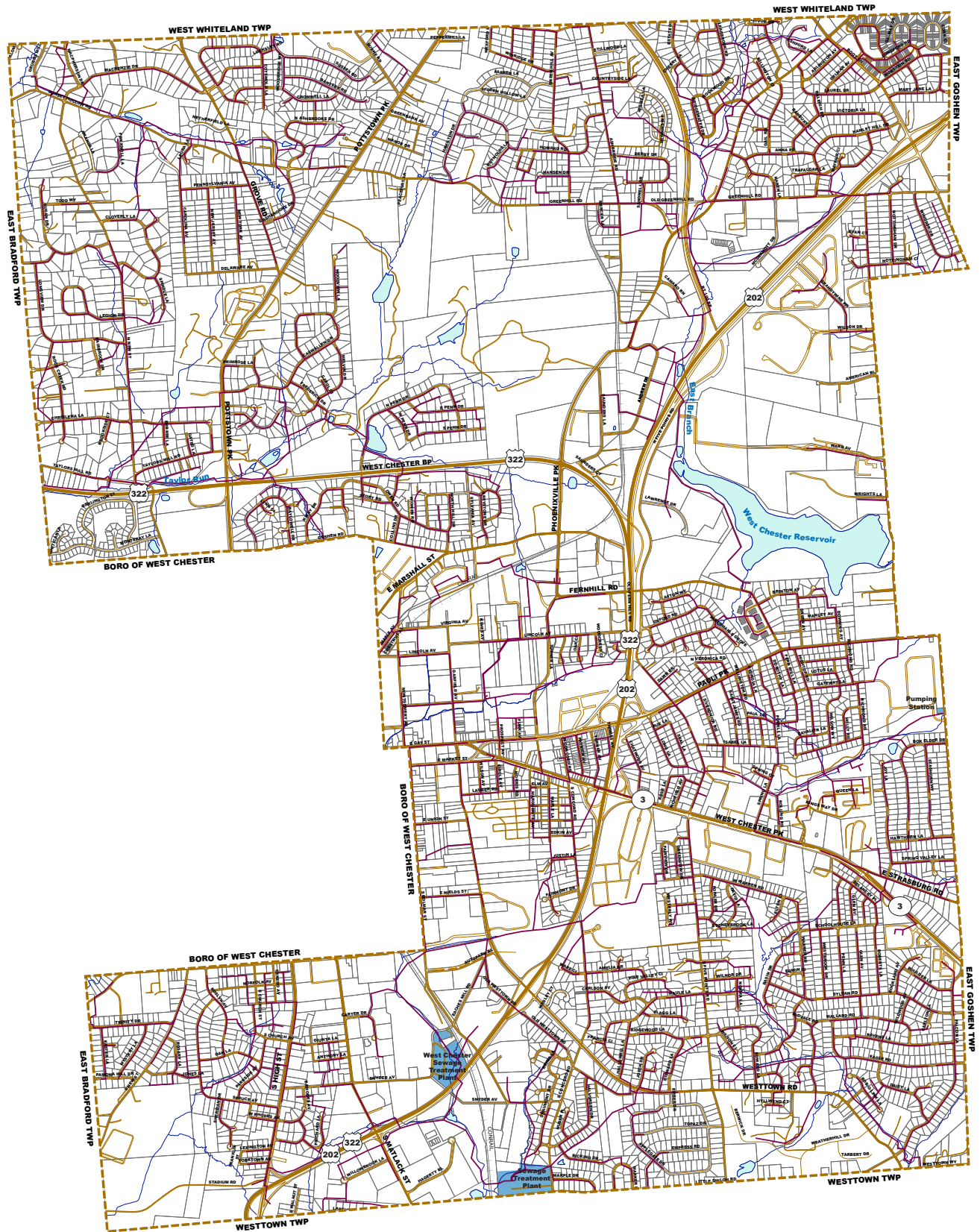
The Sewer Authority's capacity for 2002 was 4.7 million gallons per day. Approval was recently granted to increase the system's capacity to 6 million gallons per day. This increase is expected to be sufficient to accommodate current and planned development in the township through the planning period.

There are approximately 200 private on-lot systems. Although these systems occur throughout the township, the greatest concentration occurs in the northwest portion of the township. Any new developments in the township are required to connect to the public system.









WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE **Figure 2.9.1 Selected Community Features**

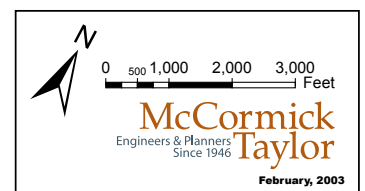




WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 2.9.2 Central Sewer Service Areas

- | | |
|---|--|
|  Township Boundary |  Sewer Lines |
|  Roads / Streets |  Tax Parcels |
|  Streams / Lakes |  Sewage Treatment Plant |



Chapter Three: Growth Management Plan

Chapter Three: Growth Management Plan

SECTION 1: GENERAL INTRODUCTION

The Growth Management Plan is intended as a guide for future growth and land development in West Goshen Township. Several months of background research and analysis, monthly meetings with the West Goshen Township Comprehensive Plan Task Force, focused surveys, and Public Information Meetings described in Chapter One, form the basis for the Plan. It reflects not only a comprehensive set of goals and policies for development, but also attempts to embody shared community wants and aspirations.

The Growth Management Plan is composed of several elements pertaining to land use, circulation, housing, community facilities, utilities, conservation, and environmental protection. Prior to discussion of the elements, Section 2 presents a summary of goals, objectives, and policies upon which the Plan has been structured. The remainder of the chapter develops the components of the recommended development pattern for West Goshen Township.

The Growth Management Plan represents a guide to be followed by West Goshen Township, other public and quasi-public organizations, citizens, and by private developers in order to address important issues and problems related to the township's overall development. Many of these problems and issues are interrelated, so that effective resolution of one cannot take place without simultaneous efforts to resolve others.

An especially significant aspect of the Growth Management Plan is the close coordination and mutual-reliance between the Land Use Plan (Section 3) and Circulation Plan (Section 4). The character of the land use concepts outlined in Section 3 is closely tied to the circumstances and potentials of the road network, and the recommended circulation improvements respond to and advance the framework for development embodied in the Land Use Plan.

Other mandatory planning processes, such as requirements for municipalities to complete Act 537 sewage facilities plans, are fundamental in the presentation of the various elements of the Growth Management Plan.

The Growth Management Plan is focused on the location, character, and timing of future development. In particular, the Plan proposes that future development be directed to locations and in a manner that allows the phasing-in of specific transportation and water and sewer service systems improvements. The incremental processes of development are also primary concerns of the Plan with reference to natural resource protection and open space conservation.

The Growth Management Plan provides opportunities for growth. Under Pennsylvania statutory law, the right of approval for subdivision and land

Chapter Three: Growth Management Plan

development is (with limited exceptions) exercised by municipalities, and not, for example, by counties, as it often is in some neighboring states.

Under Pennsylvania case law, all municipalities must provide land development opportunities for all reasonable uses. The only alternative to providing growth opportunities in all municipalities is through the joint municipal planning and zoning provisions of the Pennsylvania Municipalities Planning Code, whereby two or more municipalities can, through shared efforts and actions, produce joint development ordinances and limit growth to a few locations within the combined area of the participating municipalities. (The Commonwealth of Pennsylvania has recently enacted legislation that significantly expands opportunities for municipalities to undertake planning activities jointly.)

While West Goshen Township may want to consider opportunities for intermunicipal planning and pursue them in the coming years, this Growth Management Plan for West Goshen Township must be mindful of the central role of individual municipalities in approving and providing for growth in Pennsylvania.

Chapter Three: Growth Management Plan

SECTION 2: GOALS, OBJECTIVES, AND POLICIES

A. Development Pattern

GOAL: Achieve a future overall development pattern that is responsive to the economic, social, and cultural needs of residents of West Goshen Township and that considers the realities of regional trends.

GOAL: Preserve and enhance the physical and environmental characteristics that make West Goshen Township a distinctive and identifiable place, while at the same time provide for the needs of existing and prospective residents.

GOAL: Ensure that development occurs in ways that minimize degradation of natural and cultural environments.

GOAL: Conserve the remaining open areas of West Goshen Township.

GOAL: Encourage development to take place in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors.

Objective: Maintain existing districts and neighborhoods so as to ensure their continuing suitability for residential, commercial, industrial, recreational, and institutional use and their attractiveness for compatible development.

Objective: Designate areas for growth that are adequate and appropriate to accommodate expected development and that can be served over the planning period by central water and sewer systems and by an upgraded existing network of roads, as well as other public services.

Objective: Accommodate prospective development that will result in the creation of substantial acreage of permanent and contiguous open space and significant publicly-accessible areas.

Objective: Encourage non-residential development in areas where these types of uses are already established.

Objective: Locate community facilities at strategic locations in the township.

Chapter Three: Growth Management Plan

Policies:

1. The Township shall direct regionally-oriented office and business park uses primarily to the industrial park areas near Brandywine Airport and at US Route 202 and South Matlack Street.
2. The Township shall limit the amount and intensity of any uses outside of the US Route 202 and PA Route 3 corridors and that area of the township enclosed by the US Route 322, US Route 202, and South Matlack Street corridors.
3. The Township shall enhance the West Chester Pike corridor as an important location for community-focused retail and other commercial services.
4. The Township shall enact development regulations to ensure compatibility between adjacent land uses and to effect transition zones between potentially incompatible uses.
5. On tracts undergoing residential development, the Township shall promote the concept of residential clustering for a more efficient use of land and infrastructure, preservation of natural and historic resources, and creation of usable open space and recreation lands.
6. The Township shall promote the formation of a permanent open space network throughout the community, the creation of a local system of trails, and the establishment of new publicly-accessible areas at selected locations.
7. The Township shall encourage appropriate development of the Jerrehian property in order to ensure compatibility with adjacent land uses, minimize the impact on roads and municipal services, and maintain linkages through the property for the proposed open space network.

B. Economic Base

GOAL: Encourage opportunities for businesses in the community.

Objective: Locate businesses and employment centers within major transportation corridors in order to maximize accessibility for employees and clients and limit traffic impacts on residential areas.

Chapter Three: Growth Management Plan

Objective: Enhance commercial concentrations that are a key element in the township's tax base and that serve residents of the township and surrounding municipalities.

Objective: Provide opportunities for local residents to obtain convenient services.

Policies:

1. The Township shall direct new consumer-oriented service businesses primarily to the West Chester Pike and westerly Paoli Pike corridors, while at the same time ensuring the compatibility of all commercial activities with the character of the community.
2. The Township shall work toward upgrading and enhancing the West Chester Pike corridor, with improved circulation, parking, and landscaping; increased prospects for one-stop patronage of several kinds of facilities; and expanded opportunities for pedestrian circulation.
3. The Township shall enforce performance standards with respect to noise and traffic and generally good planning practice in commercial and mixed-use areas in order to ensure compatibility with adjacent and neighboring uses and to maintain a setting that anticipates and accommodates subsequent development.

C. Circulation

GOAL: Achieve a safe, efficient, and pleasant circulation system that is compatible with the character of West Goshen Township and that will best serve both necessary and pleasure trips.

Objective: Encourage traffic generated by new development to use the arterial and major collector roads in the township and discourage dispersion of this traffic into the residential neighborhoods of the community.

Objective: Maintain a high level of service on the township's arterial roads, Paoli Pike, West Chester Pike (PA Route 3), US Route 322 and US Route 202.

Objective: Identify additional road linkages to be constructed in concert with the development of areas designated for new residential and commercial uses, including changes to the road system that would enhance circulation,

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economic growth, and quality-of-life in the community.

Objective: Identify existing and potential intersections and roadway segments with safety problems, along with methods of eliminating these deficiencies.

Objective: Minimize costs (construction, maintenance, social, and environmental) associated with the development of new and improved roadway segments.

Objective: Identify and generally set priorities for projects that are appropriate for inclusion on DVRPC's Transportation Improvement Plan (TIP) and PennDOT's twelve-year Highway Program.

Policies:

1. The Township shall direct new regionally-oriented office/business park development to the industrial park area near Brandywine Airport and at Route 202 at South Matlack Street.
2. The Township shall regulate the number and spacing of access driveways and intersecting streets to arterial and collector routes so as to maintain free-flowing, safe, vehicular movement.
3. The Township shall review all development proposals for appropriate vehicular access in keeping with the road classification system.
4. The Township shall support upgrading of roads and intersections where increasing traffic and/or dangerous conditions warrant circulation system improvements.
5. The Township shall work with state, county, and other local municipalities toward resolving regional traffic problems.

Objective: Encourage opportunities for travel in West Goshen Township by means other than private automobiles.

Objective: Promote the goals of the Clean Air Act Amendments.

Chapter Three: Growth Management Plan

Policies:

1. The Township shall work toward the provision for sidewalks along all arterial and collector roads in the community and shall direct the construction of sidewalks in areas where existing or potential pedestrian traffic warrants such facilities.
2. The Township shall establish a network of community trails in accordance with a trail system plan.
3. The Township shall encourage expanded opportunities for pedestrian circulation at selected locations in the West Chester Pike (US Route 3) corridor.
4. The Township shall encourage ride-sharing among local residents.
5. The Township shall support low-cost physical improvements to new roads and roads undergoing upgrading to accommodate bicyclists.
6. The Township shall encourage the use of public transportation, including provisions for passenger amenities such as shelters and sidewalks and the promotion to employers and businesses of incentives such as DVRPC's TransitChek and SEPTAs Compass programs.

D. Community Services

GOAL: Provide public services, facilities, and utilities in the most cost-effective manner, taking into account community needs and environmental factors.

Objective: Maintain services and facilities that are consistent with the development pattern envisioned for the community.

Policies:

1. The Township shall review all development proposals to determine their probable effects on public service systems, including schools, emergency services, utilities, recreation, and administrative services, and shall consider approval of such proposals only when they are consistent with the Comprehensive Plan.
2. The Township shall plan for expansion of central sewage system

Chapter Three: Growth Management Plan

capacities and extensions and upgrades of mains as needed to serve existing and projected residences and businesses.

3. The Township shall monitor the collection lines and pumps of the Township Municipal Authority and shall direct needed upgrading of system components to reduce inflow and infiltration into transmission lines and to maintain system efficiency.

4. The Township shall monitor private sewage treatment and disposal systems through the planning period and shall support directives to upgrade such systems, where needed, to protect the health of the community.

Objective: Provide an adequate supply and mix of accessible parks, playgrounds, and other recreation facilities, both active and passive, to serve the existing and projected population of West Goshen Township.

Policies:

1. The Township shall promote the development of a network of pedestrian and cycling paths through open space and along roadway and utility corridor areas designated in this Comprehensive Plan.

2. The Township shall work toward creation of open space linkages from residential neighborhoods to significant destinations in the township and beyond its borders, including designated park and recreation areas and commercial and institutional centers.

3. The Township shall promote the concept of residential clustering for a more efficient use of land, conservation of natural resources, and creation of usable open space and recreation lands.

4. The Township shall promote the development of open space buffers in newly-developed areas that will serve as recreational amenities.

5. The Township shall provide development incentives to encourage private conservation, development, and/or maintenance of open space land.

6. The Township shall develop and maintain existing and prospective community recreational facilities for their use and enjoyment by township residents.

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E. Housing

GOAL: Provide for a diversity of housing opportunities, in harmony with existing development and the historical and natural environments.

Objective: Facilitate a range of housing types, sizes, and price levels, to respond to changing housing needs and to provide housing for various stages of the life cycle, household configurations, and income levels.

Objective: Ensure a high level of housing quality, both for new construction and for the existing housing stock.

Objective: Maintain the character of existing residential neighborhoods.

Objective: Identify policies that will provide for the housing needs of elderly and disabled residents.

Policies:

1. The Township shall conserve the existing housing stock of the municipality to maintain its residential character, neighborhood identities, and housing affordability.
2. The Township shall direct development of "infill" housing that is compatible with the structural types, scale, and neighborhood physical patterns of the built-up areas of the community.
3. The Township shall facilitate the development of single-family attached and multi-family housing, as well as small-lot single family detached dwellings, in appropriate areas as designated in the Land Use Plan.
4. On tracts undergoing residential development, the Township shall promote the concept of residential clustering for a more efficient use of land and infrastructure, preservation of natural and historic and archaeological resources, and creation of usable open space and recreation lands.
5. The Township shall, with the assistance of the County, monitor the available sources of federal and state funding for housing rehabilitation, low- and moderate-income housing construction, and infrastructure improvements, and shall consider participation in these programs.
6. The Township shall continue to enforce its building and housing codes.

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F. Resource Protection

GOAL: Protect and enhance environmentally-sensitive and culturally-significant areas of West Goshen Township.

Objective: Protect groundwater, floodplains, streams, wetlands, mature woodlands and specimen trees, steep slopes, ridge lines, scenic viewsheds, wildlife habitat, and other environmental features of West Goshen Township.

Policies:

1. The Township shall enforce regulations in order to ensure that development in areas of environmentally-sensitive resources is undertaken in a manner that minimizes their destruction or impairment.
2. The Township shall continue to enforce regulations to restrict the construction of any structures for residential, commercial, industrial, or institutional use in floodplains.
3. The Township shall continually monitor private sewage treatment and disposal systems and shall enforce system upgrades or mandate connection to public systems, as required, to prevent environmental degradation.
4. The Township shall consider a variety of techniques, including developer incentives, to promote environmental resource protection objectives.

Objective: Preserve and enhance the significant historical, archaeological, and cultural resources of West Goshen Township.

Objective: Reinforce the character and ambience of historic sites, road corridors, and landscapes.

Policies:

1. The Township shall review and revise its existing controls, such as the Township Zoning and Subdivision and Land Development Ordinances, over development in areas of historic- and culturally-valuable resources, to minimize their destruction or impairment and promote their sensitive reuse and maintenance.
2. The Township shall consider a variety of techniques, including density

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bonuses, revised development standards, limited tax or sewer tap-in fee abatements, fee-in-lieu amendments, design guidelines, and historic overlay district creation to promote historic resource protection objectives.

G. Aesthetics

GOAL: Protect West Goshen Township’s aesthetic assets, as well as enhance the image of the community.

Objective: Protect and enhance the natural amenities of newly-developing tracts.

Objective: Discourage strip development and encourage mixed-use development.

Objective: Identify roadways with particularly strong visual characteristics as well as scenic vistas that are worthy of outstanding special preservation efforts.

Policies:

1. The Township shall develop and enforce regulations governing development in harmony with the natural landscape, including maintenance of existing and planting of new trees and other vegetation, retention of topsoil, landscaping of setbacks, and perpetuation of views.
2. The Township shall enforce development standards in order to ensure the compatibility of new development with adjacent and neighboring uses and to maintain a setting that anticipates and accommodates subsequent development.
3. The Township shall consider the adoption of special corridor frontage development standards for road corridors in the community that would protect historic sites and vistas, require setbacks for new development, limit the frequency of driveways, and mandate landscaping and tree planting along property frontages for new developments.

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H. Identity

GOAL: Establish a firm identity for West Goshen Township in the minds of its residents and its visitors and places for the community to assemble.

Objective: Facilitate the development of usable and recognizable community facilities.

Objective: Make visitors aware of their presence in West Goshen Township.

Policies:

1. The Township shall work toward the creation of additional places in the community for township-wide events and the establishment of community facilities at specific places in the municipality integrated with compatible retail, office, and residential uses at these locations.
2. The Township shall consider adding markers, gateways, and other wayfaring aids for visitors that identify arrival in and departure from West Goshen Township.

I. Planning

GOAL: Put in place a variety of approaches, mechanisms, and tools appropriate for dealing with the challenges posed by growth.

Objective: Continue to coordinate planning and development efforts between West Goshen Township and adjacent and neighboring municipalities.

Objective: Continue to coordinate planning activities with Chester County, the West Chester Area School District, West Chester University, other area institutions, and State and Federal agencies.

Policies:

1. The Township shall prepare updated zoning and subdivision and land development ordinances to implement the recommendations of this Comprehensive Plan.
2. The Township shall consider the preparation of a more-focused PA Route 3 Corridor Plan that follows from and is a more-detailed study of the

Chapter Three: Growth Management Plan

recommendations of the Land Use Plan, examining the circumstances and potential of this major arterial roadway and its bordering lands.

3. The Township shall work with the County, the Commonwealth, the School District, DVRPC, and with other local municipalities toward resolving regional planning issues.

Chapter Three: Growth Management Plan

SECTION 3: LAND USE PLAN

The Land Use Plan (Figure 3.3.1) ties together all the elements that make up the West Goshen Township Comprehensive Plan. It thus becomes the primary reference against which land use decisions, as well as decisions on major public expenditures, can be measured for the next ten to twenty years. The Land Use Plan is concerned with the proposed location, intensity, and amount of different uses. It strives to be in harmony with trends affecting economic development in the township and its environs, the county, and the region, while mirroring the values, needs, and expectations of the residents of West Goshen Township.

The Land Use Plan, as well as the other specific elements of the Growth Management Plan, is oriented toward planned development of West Goshen Township through 2025, and reflects moderate population growth, significant local employment growth, a balanced land-use mix, conservation of natural and cultural resources, and efficient utilization of the existing local road network and servicing systems. The Growth Management Plan is based upon a 2025 township population of around 23,000 to 28,000 persons, and an increase of about 1,200 to 3,000 housing units above the present inventory.

General Description

The Land Use Plan incorporates an extensive system of open space throughout the township, consisting of the following elements:

- Environmental resource protection, natural areas retention and conservation, including stream courses, floodplains, wetlands, steep slopes, and woodlands;
- Recreational lands, including playing fields, parks, public and civic space, and a golf course;
- Deed-restricted permanently undeveloped lands, part of land development approvals;
- A network of trails;
- Greenways along major roadway corridors;
- Historic resource protection;
- Buffers between incompatible land uses, where feasible.

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The open space system forms a framework for the Land Use Plan and links its other uses together. Based as it is on existing natural features such as floodplains associated with Taylor Run and the East Branch of the Chester Creek and their tributary stream courses, the system can be said to be at least partly established already. For example, in many instances floodplain and wetlands regulations administered by the Township and by the Pennsylvania Department of Environmental Protection, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency, already prohibit or restrain development in these areas. The Land Use Plan incorporates these significant natural resource areas, including woodlands and steep slopes, together with deed-restricted permanent undeveloped lands, greenways, and a variety of designated recreational lands to create the open space system for the community.

As seen in the land use plan, the continuous, interconnected, permanent open space network is intended to serve several purposes: 1) to conserve areas of environmentally sensitive and culturally valuable resources; 2) to establish a framework for a township-wide trail system for walking, hiking, and cycling; 3) to permit pedestrian and bicycle access to a variety of destinations, including adjacent and nearby residential developments, schools, special natural features, shopping, and specific sites for recreational facilities; 4) to provide for private open space and recreational space needs of the residents of residential developments; 5) to create sites where public recreational facilities may be developed; 6) to provide appropriate buffers between roadways and residential areas; 7) to provide appropriate buffers, where possible, between areas of incompatible land use; 8) to provide landscaped setbacks along road corridors; and 9) to maintain and enhance wildlife habitat.

Natural-feature corridors, combined with projected linear buffers and greenways, are an important feature of the Land Use Plan. As well as the primary mechanism to protect township natural resources, these areas may offer additional long-term benefits to the community, such as the control of potential stormwater flood damage and maintenance of stable groundwater levels.

Regulations governing land development are extremely important in helping to ensure the protection of environmentally sensitive and culturally valuable lands and in creating the important buffers and greenways. Zoning alternatives such as residential clustering, which concentrates a tract's potential development on a small portion of the overall property, leaving the remaining area as permanent open space, are significant implementation tools. A primary means by which the protection of environmentally-sensitive and culturally-valuable lands and the creation of important greenways and buffers would be achieved is the use of residential cluster development zoning

Chapter Three: Growth Management Plan

provisions by landowners, in combination with existing and potential new development regulations.

In addition to residential clustering opportunities, permanent open space is supported by the establishment, through development regulations, of landscaped buffers and setbacks along road corridors and along the perimeter of developed tracts of land. In instances where tracts with incompatible land uses adjoin one another, the setback open space may also serve as a linear buffer, containing dense vegetation and/or berming to ensure adequate screening between the differing land uses. These corridors of open space also have the capability of becoming easements for pedestrian movement along the perimeter of major tracts of land as part of a township-wide network of trails.

Through various means, then, West Goshen Township may become the beneficiary of lands to be permanently preserved as open space, potentially developed as new parkland, or to be held as part of a long-term land bank for future park development and open space needs. The permanent open space system offers an opportunity to expand open space and recreational opportunities in the township, and is intended to be complementary to existing local recreational facilities.

The Land Use Plan contains a combination of ideas for residential, retail, office, industrial, institutional, and recreational uses in the township, as follows:

Residential

- Maintained neighborhood character in all existing residential areas. Compatible residential “infill” [see below] where opportunities exist;
- Mostly low density residential development on the remaining land in the northwest, northeast, and southeast parts of the municipality, primarily in a clustered form, in order to create permanent open space;
- Some medium-high density residential development at the East Marshall Street corridor near Phoenixville Pike;
- Mixed use development that incorporates residential uses at key areas along West Chester Pike, US Route 202 and the intersection of Route 322 and Phoenixville Pike [see Commercial section below].

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Commercial

- Mixed use residential, commercial and office development on West Chester Pike, central to the township and local services;
- Defined areas for integrated, interchange-oriented mixed uses along US Route 202, including an *Interchange Activity Center* west of the interchange at US Route 202 and Westtown Road. Interchange activity centers consist of a mix of commercial, office, residential, and open space uses. These uses are concentrated near existing hubs of activity; and
- A mixed-use commercial, office and residential concentration at Route 322 and Phoenixville Pike.

Industrial

- Office and industrial park development in the QVC Studio and Brandywine Office Parks, between Greenhill Road and Fernhill Road, between the Conrail tracks and Paoli Pike west of US Route 322, and in the vicinity of the South Matlack Street interchange of US Route 202.
- New office and industrial park uses concentrated in the Phoenixville Pike Corridor near Route 322.

Residential Uses

The housing element of the West Goshen Township Growth Management Plan (see Section 5 of this chapter) explains in detail the intended locations for residential use, incorporating a gradation of densities. Distinctions among residential categories are made according to gross density limits rather than by specific housing types to increase flexibility in responding to natural site conditions, recreational needs, and market demands for a range of housing types and site sizes. On newly-developing tracts, it is intended that this flexibility should lead toward open space conservation, as well as the opportunity for development of a range of housing types to meet the needs and desires of the present and future residents of the township.

In general, low density development is proposed for most of the areas of the township intended to be residential, reflecting the present generally single-family detached dwelling character of the township and reinforcing this

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quality into the future. Opportunities to create new areas of medium and high density residential use are provided along the East Marshall Street and West Chester Pike Corridors as well as the Interchange Activity Center west of the interchange of US Route 202 and Westtown Road and at the southwest corner of the intersection of Phoenixville Pike and US Route 322. These areas, where retail services, major transportation arteries, community facilities and employment are all close by and potentially within walking distance from residences, are designated as the most appropriate locations in the township for higher residential densities.

While there are some remaining open tracts available for medium- to large-scale residential development in the township, residential “infill” will be an important factor over the planning period. “Infill” describes the sensitive integration of new dwellings into the township’s existing fabric and encompasses the addition of compatible residential development on vacant, undeveloped, and under-developed parcels.

Commercial & Mixed Uses

Interchange Activity Center

The primary goal of the Interchange Activity Center concept (see Figure 3.3.1) is to encourage a mixed-use hub of office, residential, service commercial and potentially transit-related uses in the area west of the interchange between US Route 202 and Westtown Road. These uses are ones that have attracted development and redevelopment to the Route 202 corridor over the last two decades and, with the upcoming improvements to this regional highway, both to the north and south of the township, interest in the West Goshen interchanges of the roadway for similar kinds of development may be expected to increase. This location is the township’s designated site for such development and is envisioned to be a functionally integrated, walkable district, close to the Route 202 Corridor.

The location of the Interchange Activity Center is designated for integrated commercial and mixed uses, on the northwest side of the highway, accessible to it, but also to the industrial and commercial areas of the township to the north and to the west of the corridor. The area of an Interchange Activity Center is defined and its extent is limited. The Interchange Activity Center is bounded by Nields Street to the north, US Route 202 and Snyder Avenue to the south, property lines to the east of Carter Drive and Bolmar Street to the west. Access to the center would be from US Route 202, Westtown Road and potentially from Snyder Avenue and Rosedale Avenue. The primary circulation element for Interchange Activity Centers is new or reconstituted

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streets that connect to existing local streets. In order for the various circulation elements to work, improvements would also need to take place on Westtown Road.

If carefully planned and designed, the Interchange Activity Center can be an appealing setting. What is envisioned is a place for moderate-sized retail, office, combined retail-office and residential uses in a closely-knit, pedestrian-oriented district. While many different kinds of uses are possible, some uses are clearly more compatible with the concept of an Interchange Activity Center than others, as noted below:

Recommended

- Mixed-use, multi-story buildings, with retail shops and offices at ground level, and offices or apartments above;
- Residential uses within walking distance of office and commercial services;
- Pedestrian-oriented buildings, directly accessible from small streets or from a walkway system;
- Landscaping and designated open space areas to link to the planned township-wide open space network;
- Adequate parking areas;
- Transit-oriented buildings, uses and access.

Not Recommended

- “Big-box” retail, office, or other business uses that require large single-floor selling or working spaces;
- Single-floor, free-standing, single-use retail or office buildings;
- Tall buildings;
- Big surface parking lots;
- Sparse or non-existent landscaping.

The Interchange Activity Center would be similar in scale to existing business park and office/employment centers, but with more mixing of uses and services, integration of open space, and a pedestrian orientation.

There is the potential for public transportation to serve this center. Currently, the township is served by SEPTA and Krapf’s Coaches public bus services (see Chapter 2, Section 8). The Transportation Management Association of Chester County (TMACC) also provides services in the township such as vanpool services to and from major employment centers. In the future it may be possible to develop public transportation for the Interchange Activity Center with one of these local agencies.

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In addition to bus service, it may be possible to plan long-term for rail service as well. Historically, there was regional rail service along the R-3 line, from West Chester to Center City Philadelphia that ran through the southern portion of West Goshen Township. Service on this line terminated in the 1980s due to lack of ridership. However, with its location along this historic rail corridor, a future Interchange Activity Center with transit-oriented uses could be effectively combined with new station and restored R-3 passenger rail service. In addition to transit service, there is the potential for other transportation connections at the center including taxi, bicycle and other modes.

As with the Land Use Plan's recommendations with respect to the Interchange Activity Center, an urban design study may be required to identify changes needed for those properties included in the area. A *US Route 202/Westtown Road Interchange Center Study* should be an early-implementation action for the Comprehensive Plan, focusing on the following:

- Land use, vehicular and pedestrian circulation, building scale, placement, orientation and character; and
- Site layout, landscaping, signage, setbacks, parking, stormwater management, lighting, and buffering to improve the image and environment of this area.

The Growth Management Master Plan assumes that implementation of its recommendations concerning the Interchange Activity Center can occur through the cooperation and authorizations of public agencies having jurisdiction (chiefly West Goshen Township, but also the Pennsylvania Department of Transportation and possibly other State agencies) and rational decision-making on the part of owners of private property. The Plan does not envision condemnation of land by public entities in order to effectuate change in areas intended for the Interchange Activity Center. It is assumed that investors in land will behave in a manner that will maximize their return on their investment and that property owners will seriously consider development and redevelopment of parcels that they control, in a manner consistent with the Land Use Plan and all relevant development regulations, when circumstances make such actions attractive.

The Land Use Plan's recommendations represent only a first step toward implementing its ideas for an Interchange Activity Center over the planning period. A necessary next step would be to look at the implications of the Plan on these areas in greater detail, focusing on land use; vehicular and pedestrian circulation; parking; building scale, placement, orientation, and character; landscaping; and lighting. In order to carry the Land Use Plan's recommendations with respect to the Interchange Activity Center forward,

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more focused plans should be developed for each of these areas. Once these detailed plans have been formulated, West Goshen Township would be in a position to publicize and promote them and to solicit property owner and developer interest in implementation.

Other Commercial Areas

Additional mixed use areas that are recommended as part of the growth management plan are the West Chester Pike Corridor and the area in the northwest corner of the intersection of US Route 322 and Phoenixville Pike.

West Chester Pike has historically been the township's main commercial and mixed-use corridor. This area contains a mix of many types of residential development, office buildings and small- and large-scale commercial uses and is a logical location for mixed-use activities and selected property redevelopment.

The Growth Management Plan proposes that commercial frontages along this corridor be upgraded primarily through changes to the regulations that control how properties are developed. Permitted uses, bulk and setback standards, landscaping requirements and stormwater management regulations are the chief tools for ensuring that future changes to individual properties result in net visual and functional improvements to the corridor as a whole.

In addition to upgrading the corridor by improving development standards, there is the potential to provide, over time, pedestrian and bicycle improvements and to develop connections to the township-wide greenway. Bicycle and pedestrian improvements may occur within the road right-of-way. Currently sidewalks are mostly absent, but the potential exists to add them.

As any roadway improvements may be planned over the planning horizon, there may be opportunities, in conjunction with prospective roadway right-of-way improvements, to "piggyback" certain kinds of other upgrades to the corridor. Such undertakings as planting street trees, constructing sidewalks, and installing special lighting standards (poles) and luminaires may be possible in conjunction with cartway widenings and/or other kinds of changes to the roadway. Corridor improvements should also recognize the need for better and more frequent pedestrian crosswalks and provisions for bus shelters. In order to plan for these types of upgrades as part of roadway improvement projects, the Township should plan for a follow-up study for specific roadway corridors. Further discussion of these studies is in Chapter 4 of this plan.

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A mixed-use area is also designated for the area northwest of the intersection of US Route 322 and Phoenixville Pike (see Figure 3.3.1). Uses appropriate for this area would be similar to those described as part of the Interchange Activity Center, but with a lower degree of intensity of uses and an emphasis on residential and office uses. The intention is to develop this portion of the Jerrehian tract with mixed-use development and have the remainder of the tract serve as open space. This area of the property is the most well-located part of the tract for mixed-use development and the proposed uses here are compatible with uses proposed for areas to the south and east (see below).

Office/Industrial Park Uses

Office/business park uses are recommended primarily for the QVC Studio and Brandywine Industrial Park areas, where they predominate already. There are opportunities in this area for expansion of these uses over the planning period. In addition, additional light industrial development is proposed on the northeast and southeast corner of the intersection of Phoenixville Pike and Route 322.

West Goshen Township faces the challenge posed by acute peak-hour traffic congestion. Projected growth in employment means that peak-hour traffic congestion will not be alleviated in the future and may become much worse. A key element to control traffic growth may be the degree to which employees can be attracted to alternate modes of commuting such as car and van pools, shuttle buses, and transit. As development continues in the US Route 202 corridor, office park layouts need to anticipate additional access by these alternative modes. Development regulations that control site layouts may need to be amended in support of multi-modal access.

Recreational Uses

Recreational uses are integral with the Land Use Plan's extensive Open Space areas. Use of parts of these areas for recreation is discussed in detail in Section 6 of this chapter. Recreational and open space activities integrated with the Interchange Activity Center at US Route 202 and Westtown Road as well as with current and future mixed use on West Chester Pike and at the intersection of US Route 322 and Phoenixville Pike is also a hallmark of the Land Use Plan.

Fiscal Impacts of the Land Use Plan

Greater efficiencies for West Goshen Township in providing services through

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the planning horizon of about twenty years, especially with respect to utilities, transportation, and public safety, have been a central factor in shaping the Land Use Plan. The low density residential development proposed for the remaining significantly-sized undeveloped parcels in West Goshen Township, primarily in a clustered form, and medium- and higher-density uses focused on the US Route 202, Phoenixville Pike, West Chester Pike and East Marshall Street corridors is a model for development that should serve the township well in controlling its costs.

Cluster development, for example, should have limited effects on the extent of the roadway network. Municipal cost savings in the form of snow plowing, road maintenance, and road improvements should accrue over the years if this principle of the Land Use Plan is followed. In a similar vein, a concentration of residential, commercial, and mixed uses in designated areas such as the US Route 202 and Westtown Road center, the West Chester Pike corridor and the US Route 322 and Phoenixville Pike intersection, should make the extension of service networks more economically feasible.

As well, a concentration of new development in designated areas of the township including the aforementioned corridors, as opposed to widely-spread new commercial and higher-intensity residential development across the municipality, should enhance the existing commercial concentration in the community and should also protect a key element in the township's tax base. Recent suburban growth trends, in general, often have led to a development pattern that tends to promote longer-distance trips for shopping and services, and, once in their vehicles and prepared to travel some ways, residents are more likely to head directly out of the township for their shopping, recreational, and social needs. In contrast, the combination of new and existing residents in and around the aforementioned corridors can represent a potential "captive" market for local businesses. The insertion of appropriate types of commercial businesses would add to the tax base of the community and generate local employment opportunities.

Growth that results in a development pattern with an inherent tendency to increase traffic volumes in all parts of a community can be very expensive, translating into a need to improve many roadway links and many intersections. A distinction can be made between a pattern of more-concentrated and less-concentrated development, with the former requiring a more limited set of road improvements to allow for circulation efficiency.

Finally, more-concentrated as opposed to less-concentrated development should be easier and cheaper to provide with police and other emergency services, as well as school bussing, mail delivery, and solid waste collection.

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Relationship of the Land Use Plan to Local and County Plans

A total of six municipalities border the township, including West Chester Borough and East Bradford Township to the west, Westtown Township to the south, East Goshen Township to the east, and West Whiteland Township to the north. All six municipalities are in Chester County.

West Chester Borough

West Chester Borough is surrounded by West Goshen Township on the north, south and east. The borough is characterized to a large extent by mixed uses in a dense urban setting, the exceptions being toward the northern border of the borough, where the uses are suburban residential development and in the southern part of the borough where West Chester University is located.

The borough updated its comprehensive plan in 2000. Some of the goals of the plan were to retain the borough's Town Center character, preserve open space and historic resources, and reduce the impact of West Chester University student housing in the borough. No zoning changes or future land use changes along the municipal boundaries with West Goshen are anticipated at this time.

West Chester's uses are compatible with those in the West Goshen Township land use plan. The uses in West Goshen adjacent to the borough are similar to those in West Chester – suburban residential development to the north of the borough's municipal line, mixed-use commercial, institutional and industrial to the east, and mixed-use residential and institutional uses to the south.

East Bradford Township

East Bradford Township borders West Goshen Township to the west in the areas north and south of the West Chester Borough line. The uses on East Bradford's side of the municipal line are primarily low- to medium-density residential areas in a suburban setting, with some areas of neighborhood commercial development. Other uses include significant areas of open space and the south campus of West Chester University, which crosses into West Goshen Township. These uses are generally compatible with the residential, institutional and open space uses in West Goshen near the municipal line.

East Bradford is currently in the process of updating their comprehensive plan. The township is also in the process of approving two zoning changes that will be occurring along the border with West Goshen Township. The first will be in the vicinity of the West Chester University South Campus. A

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planned university district is being put into place for this area that was previously zoned low density residential in order to make it less restrictive for the university to develop their south campus. Included in this area is the stadium, existing student housing and recently-approved student housing. This intensity of uses may have an impact on the southwestern portion of West Goshen Township in the form of more traffic through its low-density residential areas that are adjacent to and near the campus.

The other zoning change that East Bradford is implementing will take effect along the municipal boundary with West Goshen Township is to the north of West Chester Borough. A portion of a previously-zoned commercial district will be rezoned to a medium- to high-density residential district. While the type of use represented by the new zoning designation will be more compatible with the low-density residential district in West Goshen at the municipal line, the zoned intensity of use is greater in East Bradford Township.

Westtown Township

Westtown Township borders the entire southern boundary of West Goshen Township. Uses in Westtown Township along the municipal line are primarily of single-family detached residential suburban character with significant areas of open space. The uses along either side of the municipal boundary are complementary, with residential areas bordering other residential areas or open space. The one area of greater intensity of development in West Goshen Township, near the South Matlack Street interchange of US Route 202, borders a mixed-use medium- to high-density residential development in Westtown Township.

Westtown Township adopted their new comprehensive plan in 2001. No zoning changes or future land use changes along the municipal boundary with West Goshen are anticipated at this time.

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East Goshen Township

East Goshen Township has a 1.9-mile-long boundary with West Goshen Township, with single-family residential, commercial, airport-related, institutional and open space uses on both sides of the municipal line. The areas along either side of the municipal line of the two townships are compatible, with residential uses in the northern portions of each township, airport, industrial park and institutional uses in the central portions, mixed-use commercial along West Chester Pike, and residential uses in the southern portion of each township. The East Goshen Township Comprehensive Plan was prepared in 1992 and is currently being updated. No significant change is envisioned for the areas along East Goshen Township's boundary with West Goshen Township.

West Whiteland Township

West Whiteland Township forms West Goshen Township's northern boundary. The uses on West Whiteland's side of the municipal line include single-family residential, neighborhood commercial and open space areas. There are compatible uses with similar residential and open space uses along the municipal line in West Goshen Township. West Whiteland Township updated its Comprehensive Plan in 1994. No zoning changes or future land use changes along the municipal boundary with West Goshen Township are anticipated at this time.

Chester County

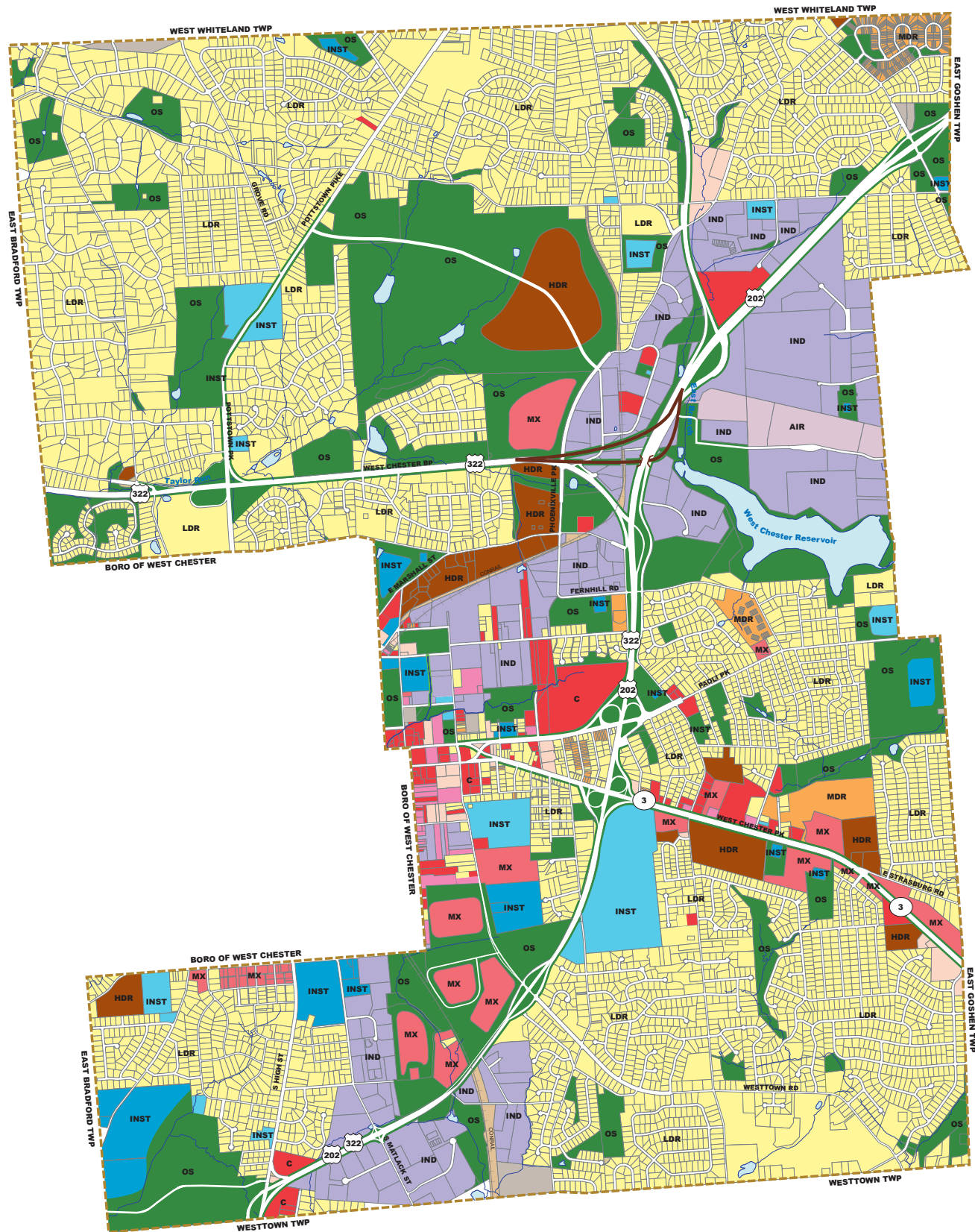
Landscapes, the Chester County Comprehensive Plan Policy Element, was adopted first in 1996, with amendments last made in 2003. The Livable Landscapes map adopted by the County Commissioners in October 2000 shows most of West Goshen Township as a "suburban landscape" interlaced with "natural landscape" corridors. The areas of the township that border West Chester Borough, bounded by Route 322 to the north and Route 202 to the east and south, are designated as urban landscapes.

The West Goshen Township Land Use Plan is consistent with these classifications of areas in the township. The combination of residential, commercial, industrial, and mixed-use areas shown on the Land Use Plan effectively represents a suburban landscape in the meaning of the county plan. The Land Use Plan's extensive areas of permanent open space echo the Livable Landscapes linear areas associated with creeks and streams and add to them. Areas surrounding West Chester Borough are designated for redevelopment and revitalization as recommended by the county plan.

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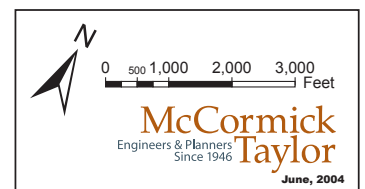
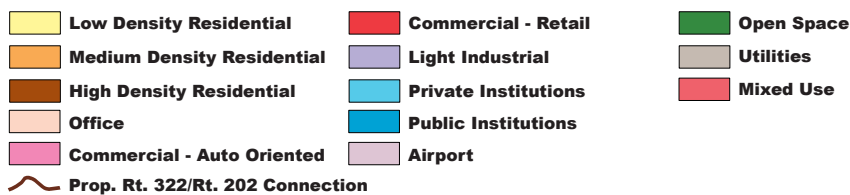
In addition to the Land Use Plan's consistency with *Landscapes*, it is also consistent with the county's open space and water resources elements of the County Comprehensive Plan, which are known as *Linking Landscapes* and *Watersheds*. The Land Use Plan is consistent with *Linking Landscapes* in that it promotes identification of municipal parks to be acquired and municipally-owned open space to be developed into parks by planning for the acquisition and development of the remaining areas of open space left in the developed suburban township. In addition, the Land Use Plan recommends the development of a municipal open space network to tie into the county and regional network. It also encourages cluster development where appropriate in the township.

The plan is also consistent with *Watersheds*. It meets many of the goals of this county plan including recommending provisions for preserving water quality, protecting riparian corridors, managing stormwater runoff, and utility and municipal planning to meet water supply and wastewater needs. Additional information on these recommendations is available in Sections 8 and 9 of this Chapter.



WEST GOSHEN TOWNSHIP COMPREHENSIVE PLAN UPDATE

Figure 3.3.1 Land Use Plan



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SECTION 4: CIRCULATION PLAN

The road system of the township consists of the following elements:

1. A multi-lane, limited-access highway, US Route 202, which crosses through the middle of the township;
2. A multi-lane, limited-access highway, US Route 100, cutting through the northern half of the township to join US Route 202;
3. An east-west highway, US Route 322, a portion of which is limited-access and serves as a bypass around the northern tier of West Chester Borough;
4. A regional east-west highway, PA Route 3 (West Chester Pike), that traverses the township through its mid-section and constitutes one of the community's main commercial corridors;
5. A regional east-west roadway, Paoli Pike, which roughly parallels PA Route 3;
6. Two regional north-south roadways, Pottstown Pike and Phoenixville Pike, that pass through the northwest and northeast portions of the township, respectively;
7. Two collector roads, South Matlack Street and South High Street, that enter the southwest portion of the township from West Chester Borough;
8. Three collector roads, Grove Road, Greenhill Road and Boot Road, that are important links in the northern portion of the township;
9. Two collector roads, North Five Points Road and Westtown Road, that are important links in the township; and
10. Minor local streets including those constructed in conjunction with new developments.

The Circulation Plan proposes to upgrade the safety, convenience, and efficiency of the road system of the township. Of the ten elements cited above, recommended improvements chiefly involve the first seven.

The Circulation Plan element recommends a multi-pronged approach to meet the challenges posed by present shortcomings in the circulation system and projected increases in traffic volumes. First, significant improvements are

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recommended for US Route 202, the township's major arterial route. Second, selected intersection improvements are recommended for various arterial roadways in the municipality such as US Route 322 and Pottstown Pike. Third, new linkages are recommended to be implemented in concert with the development of *Route 202/Westtown Road Interchange Activity Center* in the Land Use Plan.

Circulation alternatives to private vehicle use are also promoted by the Circulation Plan, to increase mobility and convenience for both residents and employees in the township. A continuous, interconnected, township-wide trail system is proposed to encourage pedestrian and bicycle access to a variety of destinations, including residential developments, employment centers, schools, special natural features, shopping, and specific sites for recreational facilities. Improved SEPTA bus and rail service is advocated and alternate modes of commuting, such as car and van pools, shuttle buses, and transit are supported.

US Route 202

U.S. Route 202 in Pennsylvania is a 59 mile-long highway that connects New Jersey to the north with Delaware to the south and serves as a major commuter route and vital link for business and industry in the tri-state region. The highway varies in size from a two-lane road to a four-lane expressway. Some of the fastest growing areas in the Greater Philadelphia Region are located along US 202. Because of available acres of undeveloped land and the corridor's reputation as a high-tech growth area, many of these areas have experienced rapid residential, commercial and light industrial growth. The following sections discuss planned improvements in West Goshen Township and in adjacent townships that will impact traffic.

PennDOT Highway Improvement Program North of West Goshen Township (Section 300)

Section 300 of Route 202 is a 6.3-mile long four-lane, limited access expressway between U.S. Route 30 and North Valley Road in East Whiteland and Tredyffrin Townships. PennDOT has begun final design for the planned improvements for this road including widening from four to six lanes, widening of bridges to accommodate additional lanes, and interchange improvements at PA Routes 29 and 401.

The improvements to Section 300 will affect West Goshen Township as a whole. While US Route 202 has served as one of the area's most important routes for many years, upgrades to this highway will reinforce its significance

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and attract additional traffic to it. As a result of the improvements to Section 300, the township can expect an increase in traffic in the West Goshen portion of US Route 202 and on roadways that intersect with the highway's interchanges.

PennDOT Program South of West Goshen Township (Section 100)

PennDOT is currently conducting an Environmental Impact Study (EIS) and preliminary engineering to examine possible improvement alternatives for Section 100 of US Route 202. This section of the highway is located in Delaware County, (Bethel, Concord, Chadds Ford, and Thornbury townships) and Chester County (West Goshen, Westtown, Thornbury and Birmingham townships). Among the alternatives being carried forward to the next phase of the study are three alignments that involve widening with grade-separated interchanges.

In addition to the impacts that the improvements to Section 100 will directly have on the West Goshen Township portion of US 202 (discussed in further detail below), the overall improvements to Section 100 will affect West Goshen Township as a whole by attracting additional traffic and development to the highway and its intersecting roads.

PennDOT Program in West Goshen Township (Matlack Street)

In West Goshen Township, Section 100 includes the portion of US Route 202 from the southern boundary with Westtown Township to the Matlack Street interchange. In this phase, PennDOT is examining alternatives for the Matlack Street interchange that include widening the road from four lanes to six lanes and constructing a grade-separated intersection. Because of the heavy congestion currently at the interchange, the creation of an improved, grade-separated intersection would better manage traffic flow. There is also the expectation that the US 202 improvements will result in a decrease in traffic on residential streets near the interchange. This type of traffic is currently occurring as drivers use alternative routes to avoid the interchange.

US Route 202 Interchanges in West Goshen Township

While the PennDOT program is to improve the Matlack Street interchange, there are circulation problems exhibited at other interchanges of US Route 202 within West Goshen Township. The interchange of US 202 and US 322 poses significant challenges – these are discussed below. In addition difficulties exist at US Route 202's interchanges with Boot Road and with Paoli Pike. The ramps of the Boot Road interchange, in particular, experience significant backups during peak commuting periods, due to its proximity to

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major employment centers. Congestion related to US 202's interchanges with local roads will continue to be an issue in the township through the coming years. The development of the Interchange Activity Center west of the US 202/Westtown Road interchange may result in additional traffic in that area of the township and this interchange may require upgrades over the planning period. Proposed improvements to some of the US 202 interchanges can be found in Table 3.4.1.

Route 322/202 Interchange

The interchange between US Route 322 (West Chester Bypass) and US Route 202 currently offers half of the ramp movements normally associated with such a highway interchange. Eastbound US Route 322 traffic can enter southbound US Route 202, but is precluded from getting onto US Route 202 northbound. A northbound US Route 202 driver may enter westbound US Route 322, but a southbound US Route 202 motorists may not travel onto westbound US Route 322. These deficiencies have historically produced inconveniences for area drivers and it is expected that this problem will worsen as traffic volumes and congestion increase in and around the Borough of West Chester.

There are many factors that will affect the feasibility of the completion of the US Route 322 and US Route 202 interchange. While the geometric configuration of the interchange has remained the same, land development around it and the closely-related Route 100/US Route 202 interchange has been dynamic. New industrial and office development, as well as open space, recreational, and airport facilities, have been constructed close to and in the vicinity of the highways. Opportunities to add new ramps are becoming more complicated as land developments continue apace. Prospective development of the extensive Jerrehian property northwest of the interchange is also a significant variable here. Another important factor for the vicinity of the US Route 322 and US Route 202 interchange is the presence of West Chester Reservoir and the East Branch of Chester Creek. Near the interchange are several congested movements. Just to the north, heavy volumes of traffic enter and exit US Route 202 from Route 100.

Despite these complications, the desirability of completing this interchange is clear. Current circulation is hampered by a lack of ramp movements at US Routes 322 and 202 and, with additional development in West Goshen Township and in the West Chester area, the need for the additional ramp movements will become more acute over the coming years.

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Other Potential Improvements to Existing Roads

Route 322 and Pottstown Pike Interchange

Just to the west of the US Route 202/322 interchange is the congested intersection at US Route 322 and Pottstown Pike. The partial interchange between US Route 322 and Pottstown Pike provides inadequate access. Westbound traffic on US Route 322 can enter northbound Pottstown Pike and southbound vehicles on Pottstown Pike can enter eastbound US Route 322. Other movements must be made via Taylors Mill Road, a residential street of single-family detached dwellings situated one block north of US Route 322.

While the scale of the US Route 322/Pottstown Pike interchange is more compact than the US Route 322 and US Route 202 interchange, problems related to traffic volume increases and congestion exist for the US Route 322 and Pottstown Pike interchange that echo those mentioned previously. Increased traffic is leading to extremely congested intersections at both ends of Taylors Mill Road and a deteriorating quality of life for residents of Taylors Mill Road.

The relationship of the US Route 322/US Route 202 interchange and US Route 322/Pottstown Pike interchanges is one of proximity (they are about 1½ miles apart) and, with respect to US Route 322, one of continuity. In terms of traffic, what happens at one interchange will clearly affect the other. Land use around and near each of the two interchanges is also linked, especially with respect to future use of the Jerrehian property. If this property is developed, significant upgrades of the US Route 322/US Route 202 interchange and Pottstown Pike will be required. Because of the proximity of the US Route 322/US Route 202 and US Route 322/Pottstown Pike interchanges and the significance of the two highways in the region, the township should work with the other West Chester area municipalities, Chester County, and PennDOT to come up with workable solutions to the problems found at these two interchanges.

Tigue Road

The private access road that crosses West Chester University's campus between South High Street and South New Street, ending on the west at Lenape Road is also known as Tigie Road. The section of the road located in West Goshen Township traverses the Gordon Environmental Tract, a wooded, mostly undeveloped portion of the university campus. West of South New Street, Tigie Road is open to the public and is a relatively narrow, low-volume roadway with only a few driveways along it. Most of the road is

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located in West Goshen Township with only one-tenth of a mile located in East Bradford Township.

The opportunity to explore opening Tigie Road for public vehicular use from South High Street to New Street, with appropriate improvements along this portion of the roadway and westward should be pursued by the township, together with East Bradford Township, West Chester Borough, West Chester University and Chester County. The attraction of an improved (and public) Tigie Road would provide a link along the south side of West Chester Borough and West Goshen Township from the vicinity of the South High Street/US Route 202 interchange to the west. Currently, without this link, traffic exiting from US Route 202 at High Street must travel north, into the southern portion of the township. Commuter traffic from the west and student traffic from the east results in vehicles cutting through residential neighborhoods. The opening of Tigie Road can provide important additional circulation opportunities for this part of the township.

West Chester Regional Planning Commission Study

The West Chester Regional Planning Commission (WCRPC) recently began a Circulation Needs Assessment Study for the West Chester Area. The study focuses in particular on three roadway corridors and intersections that occur in whole, or in part, in West Goshen Township. The study is exploring potential roadway improvements including additional ramps between US Route 322 and US Route 202 to complete the interchange, an improved connection between US Route 322 and Pottstown Pike, and the opening of Tigie Road for public vehicular use from South High Street to New Street, with appropriate improvements along this portion of the roadway and westward. This study has the potential explore alternatives and offer recommendations for these roads that impact the township.

Intersection Improvements

A series of intersection improvements is recommended to improve safety and alleviate congestion in the township. These are outlined in Table 3.4.1.

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TABLE 3.4.1 RECOMMENDED INTERSECTION IMPROVEMENTS

Intersection	Deficiencies	Proposed Improvements
<i>US 202/322 Interchange</i>	<ul style="list-style-type: none">• incomplete interchange	<ul style="list-style-type: none">• add missing ramps
<i>US 322/Pottstown Pk. Interchange</i>	<ul style="list-style-type: none">• incomplete interchange	<ul style="list-style-type: none">• add missing ramps
<i>S. Matlack & Snyder Rd.</i>	<ul style="list-style-type: none">• geometry• sight distances	<ul style="list-style-type: none">• intersection improvements
<i>Paoli Pike at Five Points Road</i>	<ul style="list-style-type: none">• congestion• Backups from left turning traffic eastbound on Paoli Pike	<ul style="list-style-type: none">• dedicated left turn lanes
<i>Paoli Pike Eastbound from US 202 Interchange</i>	<ul style="list-style-type: none">• congestion• difficulty with left turns from unsignalized ramp	<ul style="list-style-type: none">• dedicated left turn lanes
<i>Paoli Pike at Airport Road</i>	<ul style="list-style-type: none">• congestion• stacking	<ul style="list-style-type: none">• dedicated right turn lane
<i>US 202 exit southbound to Paoli Pike</i>	<ul style="list-style-type: none">• volume of traffic exiting US 202 onto Paoli Pike	<ul style="list-style-type: none">• intersection improvements
<i>US 202 exit to Boot Road southbound</i>	<ul style="list-style-type: none">• congestion• stacking on exit ramp	<ul style="list-style-type: none">• intersection improvements
<i>West Chester Pike & Paoli Pike</i>	<ul style="list-style-type: none">• poor pedestrian accommodation	<ul style="list-style-type: none">• improved sidewalks, crosswalks

New Roads

In general, new roads in the community are most likely to come about as part of new residential and non-residential developments. For example, new roadways will be needed to provide access to new residential units from existing township streets. The township has an interest in seeing that any new roads built form a logical and beneficial expansion of the current network of roadways in the community and will review land development plans accordingly.

If the Jerrehian property is developed, not only will improvements of the US Route 322/US Route 202 interchange and Pottstown Pike be required, but new roads within the property itself that connect to existing roadways in the township would also be necessary. These proposed roadways are detailed in the Circulation Plan of West Goshen Township's 1977 Comprehensive Plan.

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In conjunction with the implementation of the Land Use Plan's recommendations with respect to the *Interchange Activity Center* west of US Route 202 and Westtown Road, local streets and linkages may be required. Primary internal circulation for this area will consist of new streets off of Westtown Road. Potential access to and from the Center may also be from existing streets such as, Snyder Avenue or Nields Street.

Pedestrian & Bicycle Circulation

Non-motorized circulation is fundamentally associated with a system of trails planned for West Goshen Township. Most of the open space in the Land Use Plan has the potential to function as rights-of-way for future trails and similar pathways to enable pedestrians and cyclists to get from one place to another in the community. The Land Use Plan seeks to maximize opportunities for trails and makes use of a variety of opportunities for inserting trails into the present circumstances of the community. These areas include corridors alongside existing roadways, easements along the perimeter of residential land developments, and areas that parallel stream courses and are adjacent to environmentally sensitive areas such as floodplains and wetlands.

In addition to the planned trails, the township should continue to look for opportunities to provide sidewalks along major road corridors, particularly in high-traffic areas such as Paoli Pike and West Chester Pike near the West Chester Borough line. This is important not only for pedestrians but for users of public transportation as well (see below).

Public Transportation

Public transportation in West Goshen Township is primarily Southeastern Pennsylvania Transportation Authority (SEPTA) bus routes running through the community along West Chester Pike, East Marshall Street, Phoenixville Pike, Paoli Pike and to major employment centers near the Brandywine Airport. Krapf's Coach also provides local bus service along Route 100 (Pottstown Pike). The Transportation Management Association of Chester County (TMACC) also provides services in the township such as vanpool services to and from major employment centers.

Currently, most bus service runs only hourly, with twice hourly service on some routes during peak periods. In the future, as development continues to concentrate near employment centers such as the QVC Studio and Brandywine Industrial Parks and new mixed-use development takes place in the Phoenixville Pike/ US Route 322 vicinity, the US Route 202/Westtown

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Road Interchange Activity Center and West Chester Pike, additional demand for public transportation may warrant increases in service frequency on existing routes or the creation of new routes.

The pattern of future land use as shown in the Land Use Plan suggests a configuration of population and employment in the community suited for two different types of public transportation in the coming years. For areas of West Goshen Township not served by traditional fixed-route bus service, a type of dial-a-ride service would seem to be a realistic prospect. Chester County should coordinate transit-demand monitoring activities with local municipalities to determine the need for transit services in the township over the planning period.

With the implementation of some of the changes envisioned for the US Route 202/Westtown Road area and similar new developments elsewhere along the former R-3 Regional Rail line from Media to West Chester over the planning period, SEPTA may be persuaded in the future to consider the restoration of passenger rail service on this line. A township stop along the line at the US Route 202/Westtown Road interchange area would offer significant support for transit, with riders destined for office, retail, and mixed-use activities in this vicinity.

Transit-Friendly Corridors

The prospect of increased public transit service on may require a degree of support from West Goshen Township and the other municipalities along these roadways. In order for the transit provider to be induced to improve service, it needs to have some assurance that there will adequate numbers of patrons to make the service financially viable. In order for there to be adequate numbers of patrons, conditions in the corridors need to be more supportive of potential transit usage.

For example, the West Chester Pike corridor is not very “transit friendly” today. Buildings are mostly sited a distance from the road, making for a long walk from a transit stop at the edge of the travel way to a business or similar destination. Also, sidewalks along the corridor are intermittent. Bus stops are spaced along the roadway and transit patrons need safe, convenient ways to walk to their destinations from those stops. In support of public transit use by township residents and employees, it is recommended that the major transit corridors be provided with sidewalks along them and connecting sidewalks (and all-weather trails, where appropriate) to homes and businesses within one-quarter of a mile of the corridors. Shelters at bus stops would also help to make transit use an attractive transportation alternative for commuters and others.

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All employers and businesses in West Goshen Township should also be encouraged to make use of transit-use incentives such as the Delaware Valley Regional Planning Commission's *TransitChek* and SEPTA's *Compass* programs.

Brandywine Airport

Brandywine Airport, located in the northeast portion of West Goshen Township is a general aviation facility that accommodates small non-commercial airplanes. The township considers the airport and the adjacent business development as an important part of its economic base. The airport has recently seen an increase in corporate air traffic, most likely due to the increase in office and light industrial uses in nearby office parks.

The Growth Management Plan makes the assumption that the airport will continue with its current role as a limited general aviation facility. In the event the airport has different prospects than currently foreseen, these need to be coordinated with the land use recommendations of the Comprehensive Plan. An amendment to the Growth Management Plan may be required to ensure consistency and compatibility between plans for the airport's future and those for the rest of the community.

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SECTION 5: HOUSING PLAN

The goal of the housing element of the Growth Management Plan is to provide the opportunity for a range of housing types and sizes within the township to meet diverse housing needs while at the same time supporting the other major goals of the Plan.

The number of dwelling units in West Goshen Township has increased over the last twenty years, but not dramatically. In 1990, there were 6,802 housing units in the township, of which 4,610 units (67.8%) were single-family detached units. By 2000, the number of dwelling units in the township increased by about 13.2%, to 7,703 total units. Of the approximately 900 units erected since 1990, 840 are single-family detached units and 63 are single-family attached (townhouse) and multi-family (apartment) units. Thus, the distribution of housing units by structural type is similar to 1990, with about 5,458 single-family detached dwellings (70.9%) now in the municipality.

In general, the township offers a wide variety of housing opportunities, from apartments to townhouses to small-, medium-, and large-lot single family detached units. While much of the housing stock is quite new, about half of it dates from prior to 1970 and its overall character may also be considered “mature,” since there is a good range of housing choice, both by structural type and period of construction.

Areas Available for New and Infill Residential Development

The housing element recognizes that reinforcement of the character of residential areas within the township is a significant aspect of planning for residential use in West Goshen Township. With the extent of residential construction over the last few decades, most of the community is essentially built out. Parcels still available for development in residential areas on average range from one to nineteen acres in size. Twenty-nine of these parcels are located in the township north of Paoli Pike and eight are located in the southern portion of the township. Where small to medium sized sites may be found, they should be developed generally at densities comparable with existing housing, in a form that is compatible with the existing neighborhood or district character.

The Jerrehian tract, which is over 450 acres and is still largely open, is the exception to the pattern of small to medium sized available parcels. The township would like to see only the eastern portion of the tract in the vicinity of the Phoenixville Pike/US Route 322 area developed as a mixed use

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development including a residential component, with the western portion of the tract to remain as open space.

In addition to the areas listed above for development, a recommended evolution of the West Chester Pike corridor may also represent a significant opportunity to develop and redevelop bordering properties for mixed uses, including a residential component. Parcels may be suitable for higher-intensity types of residential uses, such as single-family attached (townhouse) and multi-family (apartment) units and perhaps specialized residential uses such as life-care facilities. As mentioned above there is also the potential for a residential component as part of mixed use development in the Phoenixville Pike/US Route 322 area and the Interchange Activity Center west of the interchange of US Route 202 and Westtown Road. These areas may have prospects for residential uses in place of current uses or may include new multiple-use (residential and commercial, for example) structures consistent with the special character intended for these parts of the community.

Housing and Commercial Development

Based on past growth in residential development in West Goshen and in the adjacent townships in the West Chester region, it is expected that the demand for residential construction will be steady over the planning period. However, the lack of availability of land for new residential development could slow the rate of new construction. Higher density residential construction may occur in conjunction with commercial/mixed use initiatives in the township, such as the US Route 202/Westtown Road Interchange Activity Center and the Phoenixville Pike/US Route 322 area. This may or may not meet the demand for residential units as this higher density residential construction may appeal to different types of households than single-family residential construction.

While dwelling construction rates in West Goshen Township over the past twenty years have been steady, office development activity has been significant. One possible implication of continued strong office development activity may be increased demand for residential units close to employment centers such as the QVC Studio and Brandywine Office Parks and similar local office developments. In general, residential proximity to a place of work can keep employee commuting time and transportation expenses down. This factor can contribute to increased market demand for housing in West Goshen Township. Greater regional traffic congestion may underscore this consideration for families and individuals in the coming years.

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Housing & Access to Transportation & Community Facilities

The West Chester Pike corridor already offers supporting circumstances for residential development by virtue of a role as a major transportation corridor, including public transit service. Access to major roadways and to bus service that feeds the regional rail system can be important determinants for the development of single-family attached (townhouse) and multi-family (apartment) units, in particular.

In the future, a concentration of residential units at the Interchange Activity Center at US Route 202 and Westtown Road may provide an impetus for the Southeastern Pennsylvania Transportation Authority (SEPTA) and the Transportation Management Association of Chester County (TMACC) to provide higher levels of fixed-route bus, “circulator,” and other types of transit services. In the longer term, SEPTA may be influenced toward restoring service along the historic West Chester to Philadelphia R-3 rail corridor by the presence of a concentration of employment and residential units at this location. In turn, upgraded transit services may make properties bordering the corridor more attractive for additional office and industrial development in the area.

In general, it is appropriate to locate higher-intensity housing along major transportation and transit routes, where residents would have a wider range of transportation options than elsewhere in the township. It is important that the form of housing built in this be as “transit-friendly” as possible. Measures that should be incorporated into new developments include placing building access oriented to the transit areas as opposed to sides or rears of buildings, good pedestrian connections in the form of sidewalks and all-weather pathways, and pedestrian amenities such as shelters, building canopies, and shade trees.

Housing and Demographics

While West Goshen Township’s population has been growing, it has also been aging (see Chapter 2, Section 6). From 1980 to 1990 the median age of residents rose from 29.8 to 34 years of age and in 2000 the median age of residents was 36.6 years of age.

As described above and in Chapter 2, over 70% of the housing in West Goshen Township takes the form of single-family detached dwellings. New residential development from 1980 to 2000 followed the composition established in earlier decades, with mostly single-family detached units being built, but a modest number of single-family attached (townhouse) and multi-family (apartment) units were also being constructed. As the current

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population ages, alternatives to the single-family detached form of housing may become increasingly important through the planning period. In order to permit “empty-nesters” to remain in the community in which they have lived and raised families, new opportunities to develop single-family attached and multi-family dwelling units in areas such as the West Chester Pike Corridor should be explored. Age restricted housing developments should also be considered as a way to provide for the township’s aging population.

Housing & Open Space

The housing element recognizes the Growth Management Plan’s goals and objectives with respect to community services and resource protection. The extensive system of open space throughout the township, portrayed in the Land Use Plan, depends on creation of generous amounts of permanent open space on each tract of land and a high degree of connectivity of open space from one tract to another. The trail system proposed to be implemented over the planning period will rely to a great extent on the availability of conservation/trail easements through existing and prospective residential developments. It is recommended that residential clustering, which permits a concentration of a tract’s potential development on a small portion of the overall tract and leaving the remaining area available for open space and recreation use, be promoted in order to help realize the township open space system.

While some opportunities for residential clustering have been available over the last few years in the township, additional incentives may be needed to achieve the goals of the Growth Management Plan. Currently, cluster development is permitted in the R-3 Residential Zoning District and in the GCD – Golf Course District. If the Township is anxious to preserve the remaining open space areas in the community, residential clustering opportunities must be available and must be attractive to potential developers of land. All low-density residential zoning districts should offer clear opportunities for residential clustering. The benefits of the open space that results are substantial for township residents, and are permanent as well.

Residential clustering reduces the amount of land consumed for residences when compared with conventional development methods, while at the same time preserving a portion of development tracts for permanent open space uses. “Clustering” can refer to any development design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for agriculture, preservation of environmentally-sensitive areas, permanent buffers or open space, or recreational uses. Clustering can involve only modest set-asides of land for these uses, or can involve set-asides of eighty percent or more of the whole tract being considered for development.

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From the point of view of the Growth Management Plan, the latter kind of clustering is desirable, since more permanent open space would result.

Over the planning period, West Goshen Township will remain a community of mostly single-family detached dwellings. Apart from areas designated for parks, permanent open space and resource conservation, the majority of the presently-undeveloped land in the township is proposed for low and medium density residential uses predicted to incorporate single-family detached housing styles.

Nonetheless, the Township should look to opportunities afforded by permitting structural types other than just single-family detached dwellings on parcels undergoing development. The essence of residential clustering, recommended by the Growth Management Plan, is determining the total number of dwelling units to be permitted on a tract on the basis of the tract as a whole and then actually constructing the units on a relatively small part of the tract, while preserving the rest of it as permanent open space. Housing structural types such as small-lot single family detached and single-family attached (townhouse) that can be accommodated on relatively small lots will consume less of a tract undergoing development than medium- or large-lot single-family detached dwellings.

If an overall goal for West Goshen Township is to try and preserve as much of the extant open space, then small-lot single family detached and single-family attached structural types of housing make sense, even on large tracts. In general, flexibility in permitting a variety of structural types of housing, and even encouraging single-family attached and multi-family construction in lieu of single-family detached dwellings, can help in meeting a wide variety of the needs of township residents through the planning period.

Residential Classifications — Low Density

Low density residential development, generally less than 2 1/2 dwelling units per acre, is proposed to remain the predominant land use in the township over the planning period. Existing low density residential areas are stable and are projected to remain much as they are through the planning period. Any development of several units simultaneously, or of a substantial tract, is proposed to incorporate generous corridors of contiguous open space as part of the land development process. This technique is recommended in order to protect environmentally-sensitive resources, provide lands for recreation, accommodate greenways along road corridors, and to allow for a trail network throughout the community.

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Residential Classifications — Medium Density

Medium density residential development, from about 2 1/2 to 6 dwelling units per acre, corresponds generally with relatively-recent and prospective single-family detached and single-family attached (townhouse) developments. One pending and proposed development falls into this category, Shadeland Woods, a 45-unit townhouse development on Phoenixville Pike.

Prospective sites for medium-density housing include tracts along West Chester Pike, in the US Route 202/Westtown Road Interchange Activity Center and at the Phoenixville Pike/US Route 322 intersection.

Densities of these prospective medium-density residential developments are entirely consistent with the construction of single-family detached housing types and/or single-family attached (townhouse) dwellings.

Residential Classifications — High Density

Housing types of this density, over six dwelling units per acre, include townhouses and apartments. As has already been suggested, the availability of specialized commercial and business services in the vicinity of West Chester Pike and East Marshall Street, in the US Route 202/Westtown Road Interchange Activity Center and at the Phoenixville Pike/US Route 322 intersection and the township's advantages with respect to proximity to highways and employment centers may contribute toward the development of attractive, high-quality dwelling units at and near these locations. High density residential development is also planned near West Chester University, consisting of a privately developed off-campus 450-bed dormitory.

Fair Share & Affordability

The term "fair share" comes from legal decisions that have been made, beginning in the mid-1970s. Courts have held that local government land use regulations must allow for the housing needs of people who may desire to live within a municipality's borders. In that regard, an ordinance may not exclude legitimate uses of land, such as multi-family housing, either by specifically prohibiting the use or by failing to make provisions for the use. Each municipality, then, must do its "fair share" in accommodating various housing types that may be in demand in a region.

In Pennsylvania, there are no precise measures for determining whether a municipality has provided its "fair share." According to the Chester County Planning Commission, approximately fifteen to twenty percent of potential

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housing units should be other than single-family detached units. Similarly, between two and fifteen percent of the land area of a municipality should be available for such units.

The Growth Management Plan makes provisions for a range of housing options in the township, including those for multi-family housing. In addition to the existing housing types located in the county, the plan has provided for additional medium-density residential, high-density residential, and mixed use areas, the latter of which includes housing as a use. These designations support housing types that include single-family attached, multi-family, and specialized (life care, for example) residential structural types. Of the approximately 7,703 dwelling units in the township at the present time, about 2,245 (29.1 percent) are single-family attached or multi-family units. This percentage exceeds the recommended percentage by the County Planning Commission that should be available for units other than single family detached.

The Growth Management Plan for West Goshen Township advocates a variety of housing opportunities, to meet the needs of residents as their circumstances change through the life cycle, to help conserve open space, to help create and reinforce the Interchange Activity Center and the Phoenixville Pike/US Route 322 special-identity areas, to redevelop the West Chester Pike Corridor, to provide for affordable housing units, and to provide for a “fair share” of regional housing needs.

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SECTION 6: COMMUNITY FACILITIES PLAN

The goal of the community facilities element of the Growth Management Plan is to provide the complement of facilities and services necessary to serve the residents of the township through the planning period. Public school, park and recreation, community, administration, and emergency services facilities are reviewed in this section.

Schools

The West Chester Area School District, of which the township is a part, has faced steady increases in enrollment, reflecting population increases in the constituent municipalities. District facilities are currently being expanded and improved. Henderson High School, East High School and Fugett Middle School are all in the process of facilities renovation or expansion. In addition, Bayard Rustin High School is being planned for Westtown Township.

With the current renovations and construction, the number and size of district facilities will likely be stable for at least the first part of the planning period. With facilities improvements underway, projected enrollments indicate that there will be adequate capacity at all the schools for the next few years.

West Goshen Township is centrally located within the school district. As a result, six schools, as well as the district's administration and facilities buildings are located in West Goshen Township, making it the focus for considerable numbers of vehicle trips, as buses and automobiles travel to and from the schools and district offices. Trips generated by public institutions such as schools can be substantial and resulting traffic impacts on a municipality's roads can be significant. In light of this factor, it is important that any further expansion of school district facilities in the township be contingent upon the ability of local roads to accommodate vehicle trips generated at peak travel times, especially school opening and closing periods.

The existence of the West Chester Area School District facilities right in the township does have benefits to residents. The schools are conveniently located, presenting opportunities for students to bike to classes. In the future, enhanced opportunities to reach schools from dwellings via the township-wide open space and trail system should make the proximity to school sites even more of an advantage to residents of West Goshen Township. This proximity favors adults in the township as well as school-age residents, especially in the context of schools as resources for the entire community.

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The role of schools as community facilities, beyond a basic function as educational institutions, should not be overlooked. School buildings and grounds are important community amenities and should be made available for general community use outside of regular school hours. School districts and municipalities should work cooperatively to ensure that educational facilities are true community resources, with opportunities for use by the general resident population as well as by enrolled children. The fortuitous location of the district facilities relative to township residential concentrations is also a factor in consideration of the role of these facilities, in the broadest sense, in the life of the community.

Parks and Recreation Facilities

According to the National Recreation and Park Association (NRPA), municipalities should be provided with three types of parks — playlots, neighborhood parks, and community parks — in the following ranges:

<u>Type of Park</u>	<u>Acreage Range per 1,000 Population</u>
Playlot	1
Neighborhood Park	1 - 2
Community Park	<u>5 - 8</u>
TOTAL	7 - 11

For a 2025 township population of 23,000 to 28,000 (see Section 3 of this chapter and Chapter 2, Section 6), then, some 178 to 280 (average = 229) acres of parkland would be required, according to the NRPA standards.

NRPA standards should be taken merely as a guide and should not necessarily be followed strictly. Local circumstances may indicate that a departure from these standards may be in order. For example, if residential developments are constructed according to cluster design principles, many of the playlot and neighborhood park needs will be able to be met at the level of individual developments, and will not constitute a direct responsibility of governmental units or community organizations.

Publicly-accessible open space inside the township that technically may not qualify as “parks” under the NRPA standards are nonetheless important resources for West Goshen Township residents. Such areas would include West Chester Area School District athletic fields and play areas. Publicly-

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accessible open space beyond the boundaries of a municipality can also supply parkland needs for residents of West Goshen Township. Such areas as Valley Forge National Historic Park and the pending Chester County park at the Church Farm School area in West Whiteland Township, represent important current and prospective recreational opportunities for township residents.

West Goshen Township park and open space areas enumerated in Chapter 2, Section 9 total about 115 acres, so the available acreage is significantly less than is needed to meet the target NRPA standards for the year 2025. Over the planning period, opportunities to make additional lands accessible and usable as park and recreation areas may become available. These opportunities should be pursued by the township so as to be able to keep pace with demands for parks and open space as the community continues to develop.

In the near term, there are several plans for park development currently being advanced and some additional prospects. The township has recently acquired a tract of land that abuts the Jerrehian property along Pottstown Pike for a park. Also, the West Chester Area School District acquired a parcel directly south of the aforementioned Pottstown Pike Park for athletic fields for Henderson High School.

Surveys taken in suburban communities frequently indicate that there is at the present time strong demand on the part of residents for athletic fields, but also for trails and accessible natural areas. Both kinds of recreational needs need to be addressed. An update of the 1990 West Goshen Township Parks, Recreation, & Open Space Plan should substantiate these needs and identify the best way for the municipality to address them over the next twenty years.

The Land Use Plan (Figure 3.3.1) contains a network of interconnected Open Space areas that is a composite of a variety of different kinds of spaces, including natural resource protection, deed-restricted, greenway, and buffer areas, as well as potential trail corridors, playing fields, parks, and civic space. New parkland for public use in the township can be created out of the extensive network of spaces shown in the Land Use Plan, and can come into being in a variety of ways, including the following:

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1. Outright purchase by the township or county or by a private, not-for-profit organization among whose purposes is the conservation of open space land and/or operation of park and recreation facilities;
2. Dedication of property to the township through the land development process;
3. Acquisition of an easement for open space and/or park and recreation uses by the township or county or by a private, not-for-profit organization; or
4. Donation of property or easements to the township or county or to a private, not-for-profit organization.

The West Goshen Township Subdivision and Land Development Ordinance currently requires dedication of land for park, recreation, and open space use in conjunction with new residential developments. The ordinance also has “fee-in-lieu” provisions, whereby developers of land may be required to pay a fee to West Goshen Township for the municipality to provide for park, recreation, and open space uses instead of the developer dedicating land. Funds can then accrue for municipal purchase of sites for recreational purposes or easements for recreational use through these mandatory fee-in-lieu provisions. (As enabled by the Pennsylvania Municipalities Planning Code, municipalities may require developers to either contribute land for recreational purposes or pay a fee representing the proportionate costs of a municipality to provide recreation facilities and/or improvements.)

During the planning period, fee-in-lieu provisions may prove just as important as mandatory dedications of land. Over the next twenty years, new development may take the form of construction on smaller sites and may encompass significant redevelopment of parcels. Gaining fees toward park, recreation, and open space use may be as beneficial to West Goshen Township as pieces of land. The present land dedication provisions of the Subdivision and Land Development Ordinance do not apply to non-residential development. However, prospective development over the planning period will include significant office, industrial, commercial and mixed-use development. Fee-in-lieu provisions are flexible in concept and should be made applicable to both residential and non-residential development to maximize the ability of the township to provide appropriate park, recreation and open space facilities for residents and persons employed in the township.

In general, the utility of the land development process to gain usable open space for the community as a whole should be recognized. The cluster form

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of residential development has several potential public benefits, including making land available for community park and recreation purposes. Creation of permanent open space lands through the land development process and, in some instances, the dedication of such lands to West Goshen Township, may be the most efficient and cost-effective means of gaining additional community parkland.

Another source of funds, this time for recreational facility development, is Recreational Improvement and Rehabilitation Act Program (RIRA) grants, allocated to municipalities by the Pennsylvania Department of Conservation and Natural Resources (DCNR), usually with county involvement to the extent of submitting letters of support to the Commonwealth. Other State funding programs, including *Growing Greener* grants, should be pursued by the township to assist in acquiring and developing lands for recreation.

When projecting future demands for recreational facilities and programs, it is necessary to consider not only existing circumstances but also evolving demographic changes, land use forecasts, and broad cultural trends as well. While population growth and new residential development imply increased demands for recreational facilities, population shifts toward older age groups suggest the need for a greater variety of indoor and outdoor recreational opportunities, and the increased number of women's sports teams, in response to a general societal shift, places additional demands on community and school facilities. Multiple-use facilities and shared-use, community-oriented buildings and sites should be pursued as a cost-effective way to maximize recreational opportunities in the township, the school district, and surrounding areas.

Municipal and Emergency Services

West Goshen Township has a new municipal complex consisting of administration and police wings on Paoli Pike. Built in 1999 and centrally located in the community, this facility will continue to serve the township well as an administrative and police center throughout the planning period. Also part of the municipal complex on Paoli Pike is the public works building; it too is projected to serve the community through the next twenty years at this site.

The West Goshen Police Department currently employs 27 full-time officers and operates 11 police vehicles. With staffing and equipment upgrades corresponding to population and employment increases, as required, resources at a similar level to current ones should prove adequate through 2025.

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West Goshen's Department of Public Works will continue to pursue strategies for increasing recycling throughout the planning period. Currently, there are minimum recycling requirements for commercial, municipal, institutional, and residential establishments. To encourage additional recycling, there is not a limit as to the types of recyclables or the amount of tonnage that the township will accept.

Similar to municipal services, the fire and emergency services provided to the residents of West Goshen Township by the various fire companies are expected to be adequate through the planning period. The Good Fellowship Ambulance Club will be building a new 20,000 square foot ambulance facility on its current site. It is expected to be completed by the summer of 2004. With this facility upgrade, the club expects their facilities to be adequate throughout the planning period.

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SECTION 7: CULTURAL, HISTORIC, AND LANDSCAPE RESOURCES CONSERVATION PLAN

Recent Preservation Efforts

West Goshen Township is rich in historic resources. The township contains many eighteenth- and nineteenth-century buildings, although the historic fabric of the community is comprised of many elements, including historic buildings, road corridors, bridges, fences and walls, trees and hedgerows, and other elements. These components are interrelated, so that an appreciation of one kind of element is enhanced when it is viewed together with others.

Previous surveys, such as the Chester County Historic Sites Survey, begun in 1979 by the Chester County Planning Commission have provided starting point for a list of historic resources in the township. As part of this comprehensive plan, resources listed in the previous survey were reviewed and a list of new resources was added (see Chapter 2, Section 5).

The township has continued to lose both its historic landscape character and significant historic sites. Part of the problem is a perceptual one; historic preservation is often viewed as an isolated issue intent upon preserving old, obsolete houses. Many historic houses that have been saved often exist with little vestige of their historic landscape context remaining. Historic preservation is also sometimes viewed largely as a financial burden to developers and as an obstruction to the progressive development of a municipality.

Certainly, development since 1950 has dramatically altered the township's historic landscape. After almost three hundred years of gradual, incremental change as an agricultural landscape, recent development activities have changed the township's landscape by eliminating agricultural fields and field patterns, obliterating farm lanes, removing agricultural outbuildings, and closing in the formerly open spatial character of the landscape with new residential and commercial construction and new vegetation.

Though many of the township's remaining historic resources are already located in developed areas, development pressures will likely continue in future years, and change will continue to threaten remaining resources. In West Goshen Township, the key to preserving historic resources lies in sensitively integrating them into the changing landscape of the community.

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Preservation Approach

The Cultural, Historic, and Landscape Resources Conservation Plan element has three basic preservation planning goals: Enhancing the township's quality-of-life; protecting its historic resources; and promoting research into and education about the township's history.

Historic resources are only one part of the township's character. The goals of historic preservation may be seen as integral with those of conserving open space, protecting environmental resources, and providing recreational opportunities. The challenge of the Growth Management Plan is in creating, communicating, and implementing a unique community character, accommodating elements of the natural environment, the township's human history, and contemporary demands for places to live, work, and shop.

To this end, important measures to be taken in the interest of historic preservation in West Goshen are the further refinement and timely implementation of the other growth management recommendations included in this Comprehensive Plan Update. Most important among these recommendations are:

- Provisions to encourage residential clustering in order to achieve set-asides of permanent open space for resource protection and recreational purposes;
- Development incentives to achieve a higher degree of resource protection for important resources than would otherwise be the case; and
- Implementation of an open space network.

Regulations governing land development can be extremely important in helping to ensure the protection of historic and cultural resources, in addition to environmentally-sensitive lands. The encouragement of cluster development and the flexible gross density development approach in newly-developing residential areas, for example, have the potential to be valuable tools to help protect historic and cultural resources. Essentially, the maximum number of units that would be permitted on a tract should be calculated based on an adjusted gross acreage of the tract as a whole. Having arrived at a figure for the total number of units permitted, the size and configuration of individual house lots becomes a much less critical issue than in conventional development, and these may be smaller or larger depending on the occurrence, extent, and significance of natural or cultural features that may be found on the tract. The location, extent, and characteristics of any historic or cultural

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resources found on the tract are more easily accommodated in a land development approach based on cluster development principles than one based upon conventional, lot-by-lot development.

Development incentives built into the zoning ordinance may help to achieve a higher degree of historic and cultural resource protection than would otherwise be the case. A development density bonus in return for specific historic preservation actions where such resources exist on a site is a possible tool, but the development incentives need to be attractive to developers to ensure that the historic and cultural preservation actions the township is looking for would actually be achieved.

Another technique may be the expansion of the provisions of the Township Subdivision and Land Development Ordinance, currently requiring set-asides or fees-in-lieu for open space/recreation areas by all developers of residential land in the township. Historic structures in the township are sometimes found intermingled with existing open space and with the Growth Management Plan's recommended open space network. Township efforts to establish this network, a permanent municipal open space resource, invariably will lead to opportunities to preserve historic and cultural resources along the way, and the explicit inclusion of historic and cultural areas in the list of community facilities associated with the Subdivision and Land Development Ordinance's required set-asides or fees-in-lieu should allow the Township to tap this source of funding toward historic and/or landscape preservation efforts.

The open space system envisioned in this Comprehensive Plan (see Sections 3 and 6 of this chapter) should be implemented. This open space system is a framework that can incorporate and integrate lands containing historic resources with environmentally-constrained areas, township-owned parcels, public and private recreational lands, and public right-of-ways, as well as future conservation-easement protected lands and areas that may become protected by other preservation mechanisms. The result can be a linked network of township resources, providing convenient access to these places and benefit from them for all residents of the community. Once part of this integrated system, township historic and cultural resources may be ideally situated for various kinds of interpretation techniques (see "Education & Research," below).

The most promising historic and cultural preservation techniques integrate preservation goals, objectives, and policies into broader Growth Management Plan implementation efforts. These may include a variety of development incentives built into the zoning ordinance to achieve a higher degree of historic and cultural resource protection into the future even as they also achieve higher degree of open space and natural resource protection than

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would otherwise be the case.

Resource Management

Historic Resources Overlay Ordinance

As the comprehensive planning process proceeds into the implementation phase, it will be important to explore ways that the township can participate more fully in the evolution of land development plans, especially during the early formative phases, and that the land development plans can be more creative in preserving community character, including historic and cultural resources. The township's development regulations need to be creative, flexible, and participatory, carefully balancing the rights of ownership with the long-term interests of the community. They may require new incentives and disincentives.

It is recommended that the township enact a historic resources overlay zoning ordinance. Historic resources overlay zoning involves the identification and mapping of scattered resources throughout a community. Historic resources overlay zoning protects the character of the resources by regulating the subdivision and land development review process. It clearly communicates to developers the desire of the community to preserve historic resources, and it identifies those resources. Historic resources overlay zoning requires a developer to assess the impact of a proposed subdivision or land development plan upon the historic resources on the tract being developed as well as upon adjacent affected tracts. Mitigation of the impact is required and/or negotiated through the exploration of design alternatives, buffering, landscaping, design standards, and other appropriate measures. Lot sizes and configurations as well as the design and location of improvements are controlled to preserve the integrity of the historic resources and their context. Demolition of historic resources or impairment of landscape resources can be delayed by the ordinance to allow for acceptable alternatives to be negotiated. Sensitive adaptive reuse of historic resources is encouraged through the provision of special "use alternatives" not normally permitted in the underlying zoning district. As part of the overlay zoning, it is recommended that the township establish an Historic Commission in order to review proposed developments that may have impacts on the township's historic resources.

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Design Controls & Guidelines

The creation of design guidelines for the preservation of historic resources would be valuable in communicating to developers both the vision and the technical means of achieving preservation goals. It should be clear that the preservation of historic resources means not only the preservation of historic buildings, but the preservation of the contexts that are integral to the historical significance of those buildings.

The township Historic Commission should establish design guidelines for the historic resources overlay ordinance. Developers should be required to submit sketch plans for township review that demonstrate how proposed development complies with design guideline requirements.

Adding Landscape Resources & Scenic Views to Existing Inventories

Landscape resources, particularly in the form of scenic views, should be identified as significant historic and/or cultural assets of the community and added to the Historic Resources Map. Among the landscape resources that should be considered for inclusion in an inventory of such elements in the township are the scenic roadways identified in the 1990 West Goshen Township Parks, Recreation, & Open Space Plan.

The identification and assessment of these resources are important, in part, as a basis for using land development regulations, such as zoning, to protect the resources. The employment of development regulations does not necessarily translate into additional restriction on development; they may instead provide a variety of incentives for developers to protect community resources.

Easement Donation/Purchase

Other instruments to be used in efforts toward landscape conservation include the purchase of conservation easements on properties, through both public and private efforts. Specific properties should be targeted for easement purchase, based on their physical position in the township, their role in important views and vistas, and the quantity and quality of historic resources contained.

Another possible technique is the granting of façade easements by owners of historic properties to preservation organizations. In this manner the exterior façades of historic properties would remain intact, in spite of changes that might be made over time to buildings' interiors. In the context of West Goshen Township, however, there are some drawbacks. First, most of the township's historic properties are fairly modest residences, so the value of a residential façade would be small, as would potential tax benefits that could

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accrue to a property owner in return for donating a dwelling façade easement. Second, the protection of a building façade against alteration is a limited preservation measure. Wherever possible, the township should be attempting to preserve enough of a building and its context so that the significance of the structure is not lost in the change occurring around it. The goal should be to respect the integrity of the building and its setting, not just its façades.

Education & Research

Markers & Self-Guided Tour

The erection of plaques or markers at the locations of historic resources is an interpretative technique that can make some of the history of a community tangible to both residents and visitors. As has been the case in nearby communities, such as Newtown Township, Delaware County, markers have been put in place that are visible from streets and other public places and are physically of sufficient size to support text and other elements to help explain the nature of the resource and its significance. The inclusion of these kinds of plaques along the township trail system would reinforce it as a community resource for recreation, as well as contributing toward an understanding of the township's heritage.

A self-guided tour brochure would complement the markers, placing them in the context of a circuit (or several smaller circuits) of local historic sites, containing further information on resources themselves, and providing additional information on the township and its history.

Township History

West Goshen Township has an interesting history that should be recorded. In cooperation with local partners such as the Chester County Historical Society, the township Historical Commission should oversee and coordinate research into the township's history. Research should be organized around key themes related to the township's history as well as specific properties and individuals. Grants should be obtained to support this research and a comprehensive history of the township should be prepared by a qualified professional writer and historian.

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SECTION 8: UTILITIES PLAN

Sewage Systems

For many communities, the availability of central sewer service is a major determinant for growth — both the amount of growth and where it takes place. Where sewer facilities exist and have sufficient capacity to allow new development, there has been incentive for growth to occur; likewise where they are not available growth has been relatively discouraged. The critical element, in most cases, has been the sewage treatment plant capacity above that which is now being used, and is thus available for future development.

Similarly, government decision-making with respect to utility service network extensions and upgrades have often been employed as a growth management device. The extension of water and sewer service to designated locations has often been, along with development regulations such as zoning, a major planning implementation tool.

The West Goshen Sewer Authority central sewer system began in 1961. The majority of the residences and businesses in the township now utilize this system, with approximately 5,000 to 6,000 individual hook-ups. However, there are approximately 350 on-lot private sewage systems. From time to time, the Authority has had to hook up properties that had heretofore used private on-lot systems due to malfunctions of these systems, but such malfunctions are relatively infrequent. Nonetheless, sewage system planning for West Goshen Township must take these factors into account.

In 2002, the Pennsylvania Department of Environmental Protection approved an increase of the West Goshen Sewer Authority plant's rated capacity from 4.7 million gallons per day to 6 million gallons per day. Current average daily flows are 5 million gallons per day and the new rated capacity is expected to be adequate to accommodate development through the planning period.

Future Municipal Central Sewer System

Because of the level of development that has occurred in the municipality, the ability of West Goshen Township to utilize the sewer network extensions as a growth management tool is no longer effective. Consistent with a desire to ensure long-term environmental quality and fiscal stability, the township should seek to connect as many prospective residential units and businesses to the West Goshen Township municipal central sewer system as possible. In addition, existing dwellings and businesses where current sewage treatment systems are performing inadequately or pose a threat from future malfunctions should be connected to the central system.

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Water Systems

All of West Goshen Township is currently in the service area for Philadelphia Suburban Water Company (PSW). PSW provides West Goshen Township's water supply from an interconnected system of surface and groundwater sources.

It is expected any new residential development in the township over the planning period will be served by central water facilities, and that any new commercial, industrial or mixed-use developments will receive water service from the central water supply system.

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SECTION 9: ENVIRONMENTAL PROTECTION PLAN

The Environmental Protection element of the Growth Management Plan identifies specific areas in the township that are environmentally sensitive, based on several sources: The U.S. Army Corps of Engineers' 100-Year Floodplain designation prepared for the National Flood Insurance Program; the National Wetlands Inventory undertaken by the U.S. Fish and Wildlife Service and Pennsylvania Department of Environmental Resources (now Pennsylvania Department of Environmental Protection); the Soil Survey of Chester and Delaware Counties prepared by the U. S. Department of Agriculture Soil Conservation Service; United States Geological Survey quadrangle series maps; and aerial photography. Areas that have been mapped include floodplains, wetlands, seasonal high-water table and steep slopes (see Figures 2.4.1, 2.4.2, and 2.4.3).

These classes of environmentally-sensitive features are not uniform in their impact on development potential nor in what they represent as hazards to human life and property. There are levels of sensitivity, suggesting corresponding levels of response.

Floodplains/Stormwater Management

The first and most specific level is represented by the 100-year floodplain designated by the federal government. There is clear authority for a complete prohibition of residential development within the designated floodplain, and a set of standards for regulating the design and construction of nonresidential development within the floodplain so as to prevent exacerbation of the flood hazard. Flood prone soils, identified by the USDA Soil Conservation Service Soil Survey, at times do not correspond precisely with the federal floodplain designations. The flood prone soils, so classified because of their alluvial nature, indicating that they were deposited by floodwaters, reflect not only 100-year floods but also floods of lesser frequency. Where flood prone soils lie outside the federally-designated areas, the burden of proof should be on land developers to demonstrate by specific on-site tests, engineering analysis, and analysis of effects of impervious cover percentages of upstream development that could alter flow levels, that the generalized soil classification is in error for the specific site or that any construction will be designed to avoid any possibility of creating a hazard to human life and property or exacerbating local flooding. Thus, as a matter of policy, the flood prone soils initially should be subject to all of the development restrictions of the land within the 100-year floodplain.

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The Composite Constraints map is an extremely important resource for the municipality. The information represented, particularly with respect to floodplains, is a strong determinant for land use planning and was significant in shaping the Land Use Plan (Figure 3.3.1) for West Goshen Township. Implementation of the Land Use Plan, as well as the preservation of environmentally-sensitive resources, will rely to a considerable degree on the protection of the network of floodplains within the community.

With the recent experience of acute flooding in the Commonwealth of Pennsylvania (January 1996 and September 1999), West Goshen Township and its neighboring municipalities should be vigilant in ensuring that new development does not occur in floodplains or flood prone areas unless specific special construction methods are employed. Regional efforts to control flooding should be supported.

Stormwater management and flood and erosion control along Taylor Run and the East Branch of the Chester Creek and its tributaries are necessarily closely linked to upstream land development and stormwater management policies and practices, and it is essential that local regulations promulgated in West Goshen Township and in all surrounding municipalities be based on watershed-wide considerations. Maintenance of stream water quality is also an increasingly large concern in areas experiencing growth.

BMPs & Cluster Development

Close inter-municipality and County-initiated cooperation on all stormwater management issues will be needed over the planning period. Watershed Act 167 Stormwater Management Plans and similar studies examine potential effects of land development upon discharge rates into streams and creeks, and should lead to local development regulations to assure that developments use the best available technology to minimize off-site stormwater runoff, increase on-site infiltration, minimize off-site discharge of pollutants, and encourage natural filtration functions. West Goshen Township is currently in the process of approving an Act 167 Plan developed by the state Department of Environmental Protection and Chester County for the Chester Creek watershed. When approved, this plan will effectively update the township's stormwater management ordinance. Best management practices ("BMPs") for stormwater management control may include measures such as detention and retention basins, recharge trenches, porous paving and piping, contour terraces, and swales. All stormwater retention, detention, and other stormwater management facilities should be designed to include and provide stormwater recharge in conjunction with other best management practices.

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A key factor in reducing stormwater runoff from newly-developing sites may be a curtailment of the amount of impervious cover on a parcel through improved site planning and design. Planning concepts such as clustering inherently decrease the percentage of land in impervious cover when compared to conventional development. Design features such as narrower local roadways and enhanced buffers and landscaping are also critical means toward the goal of reducing the amount of stormwater runoff.

Detention & Retention Basins

Stormwater detention and retention basins have been regarded for some time as the standard for dealing with stormwater runoff from tracts undergoing development, but are now coming under scrutiny. Basins occupy space that might be better used for something else, and basins often discharge directly into streams, precluding opportunities for on-site groundwater recharge.

In addition, the basins created over the last three decades in the township are in private hands and may not be adequately maintained. Without proper maintenance, these systems do not work as designed, and flooding may occur.

In lieu of basins, porous underground pipe systems may be installed. These promote on-site groundwater recharge, save surface areas for more-useful purposes, and represent less of a hazard than basins. All stormwater management systems should be approved conditioned on regular maintenance and authorization of periodic Township inspections.

Wetlands

A second level of environmental sensitivity is represented by wetlands; generally areas within forested lands with a high water table and poor drainage, and having some degree of surface ponding during the year. Under the jurisdiction of the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection, there is at the present time a steadily evolving regulatory framework concerning wetlands in Pennsylvania, mandating wetland surveys by developers of land and controlling the degree and type of wetland disturbance permitted.

Municipalities can provide long-term wetlands protection by directing development away from these areas, by encouraging clustered construction on higher ground surrounding wetlands, and by purchasing wetlands important to protecting local floodplains or ecological systems. The Land Use Plan

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incorporates a variety of natural resource areas, including floodplains and significant wetlands, where known, under the designation *Parks, Permanent Open Space, Resource Protection & Recreation*.

Riparian Buffers

The water quality of streams in West Goshen Township such as Taylor Run and the East Branch of the Chester Creek should be protected. One of the chief ways in which stream course water quality may be affirmed or improved is through the maintenance of riparian buffers. A riparian buffer is a corridor of varying width adjacent and generally parallel to a stream or similar water course, extending for some distance back from the stream bank. Ideally, the buffer is wooded, shading and cooling the water, trapping nutrients and sediment runoff, stabilizing stream banks, and providing food and cover for aquatic and terrestrial wildlife.

The characteristic combination of a floodplain with a stream course and the frequent association of environmental-sensitive areas such as wetlands and steeply-sloped terrain, in addition to woodlands, with streams, can begin to define a specific dimensional width to a riparian buffer. Many municipalities have adopted riparian buffer provisions into their zoning ordinances, limiting the development of lands within a certain distance of a stream bank, and taking into account whether floodplains, wetlands, steeply-sloped terrain, and woodlands are present.

The township should also consider applying to the Pennsylvania Department of Environmental Protection for a watershed restoration and protection grant, as authorized by the state's Growing Greener initiative. These grants can fund a wide variety of watershed projects, including installing stream buffers.

Aquifer Recharge Protection

West Goshen Township is served by the central water distribution system of Philadelphia Suburban Water Company (PSWC), but for some individual properties within the PSWC service area, local groundwater is the direct source for drinking water for residential units and businesses. The principle of groundwater recharge is important, firstly, since many residential units and some businesses obtain drinking water from on-site wells.

The Delaware River Basin Commission (DRBC) has designated extensive areas of southeastern Pennsylvania, including all of Montgomery County,

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most of Bucks and Chester Counties, and parts of Delaware, Berks, Lehigh, and Philadelphia Counties as Groundwater Protected Areas (GPA). Within these areas groundwater is considered to be under threat, either by excessive extractions or pollution. The DRBC has promulgated regulations that affect these areas and give the DRBC authority over the approval of any individual groundwater permit application to extract more than 10,000 gallons per day.

The aquifer that underlies West Goshen Township feeds springs that supply area streams and creeks. West Goshen Township is within the DRBC's Groundwater Protected Area, and the municipality's inclusion indicates that efforts to protect groundwater should be undertaken at the local and county levels, in addition to the region-wide regulations.

The Chester County Water Resources Authority has recently completed the County Watersheds Plan, to provide guidance to communities in the conservation of natural resources associated with watersheds, including groundwater protection. County-led and municipal follow-through to implement the Watersheds Plan recommendations will be an important part of planning for groundwater protection over the next ten to twenty years.

The Land Use Plan reveals a generous proportion of the township intended for *Parks, Permanent Open Space, Resource Protection & Recreation* uses that can act as an extensive aquifer recharge area and assure a permanent framework for groundwater recharge even as development may proceed into the future. West Goshen Township should employ this framework for groundwater recharge and protection of groundwater quality. A key technique is adoption of appropriate land use regulations, including those that would:

- Provide incentives for clustered residential development;
- Conserve woodlands;
- Ensure the use of "BMP" measures, outlined previously; and
- Encourage the use of infiltration technology for sewage treatment, when appropriate.

Wildlife and Plants

Many species of plants and animals may be found in the township's three main types of habitat — open field or pasture, forest, and wetlands. (Wetlands include streams, springs, ponds, and meadows.) Although some species have adapted to more than one habitat, other flora and fauna have adapted to very

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specific needs and conditions, and are critically dependent upon particular habitat types. Generally speaking, man-made features are considered disruptive to natural habitats, but some, such as farm fields, pasture, hedgerows, and treelines, offer important food and cover sources.

The Land Use Plan affords open fields or pasture, forest, and wetlands the highest degree of protection through the application of the *Parks, Permanent Open Space, Resource Protection & Recreation* designation to them to the maximum extent feasible. Prohibited uses in this land use category would include any commercial or industrial facilities and, except in rare circumstances, any new residential dwellings.

The Land Use Plan describes an extensive, interconnected network of protected open space areas incorporating a wide variety of sizes and types of landscapes and habitats. The continuous corridors of open space are a significant aspect of the Land Use Plan's system, providing for essential movement, dispersion, and migration of wildlife. Especially important to wildlife are the maintenance of natural corridors such as stream valleys and wooded hillsides and ridgelines.

Other Natural Features

A further level of environmental sensitivity includes areas affected by the following constraints: Mature woodlands; areas of steep slopes; and areas having a seasonal high water table within six inches of the soil surface. These features, especially when occurring in combination (Figure 2.4.3), suggest that little or no development should take place within the areas exhibiting these conditions or that development should be severely curtailed and closely regulated.

The thrust of the Land Use Plan is the broad protection of these sensitive features. Affected areas are designated generally as open space or for low density residential uses. The policy of West Goshen Township toward these environmentally-sensitive areas should be one of discouraging development wherever possible to prevent destruction of important resources or to protect residents of the township from future problems.

The chief instrument that the municipality will have at its disposal to protect these areas will be the encouragement of cluster development and the flexible gross density development approach in newly-developing residential areas. Essentially, the maximum number of units that would be permitted on a tract should be calculated based on the developable acreage of the tract (gross

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acreage minus existing rights-of-way, easements, floodplains, wetlands, and perhaps some proportion of steep slopes). Having arrived at a figure for the total number of units permitted, the size and configuration of individual house lots becomes a much less critical issue than in conventional development, and these may be smaller or larger depending on the occurrence, extent, and significance of natural or cultural features that may be found on the tract. In turn, by requiring developers to base the number of dwelling units allowed to be built on the gross developable acreage of their development parcels, areas designated by the Comprehensive Plan and any ensuing studies as being environmentally-sensitive are more likely to end up being set aside.

The Growth Management Plan's goals and objectives with respect to resource protection may be assisted through development regulations that provide incentives for developers to pursue cluster development and, having elected to follow the cluster course, to set aside large proportions of a tract as permanent open space. Regulatory flexibility is recommended, giving property owners a variety of choices if they choose to develop their land and containing various economic inducements to build compactly and to support the long-term goals and objectives of the Plan for open space conservation and resource protection.

In addition to these incentives, development regulations can provide targeted measures to help protect important environmental features, such as steep slopes and trees. A new Environmental Protection article within the zoning ordinance should incorporate regulations that currently exist, such as those for steep slopes, with new provisions that address such issues as riparian buffers.

Surveys of Environmentally-Sensitive Features

It must be recognized that the maps of environmentally-sensitive areas are accurate to a general level only. Developers should be required as a matter of municipal policy to undertake more detailed field studies of specific parcels proposed for development that will verify or modify the precise location of the sensitive features on the Comprehensive Plan or other, similar maps. By requiring such studies, especially where there is a strong suspicion or known presence of environmentally-sensitive features, developers will be more aware of the need to protect scarce resources and to avoid future problems at an early point in the development process, leading to better land planning and design solutions in the long run.

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Noise

Runway noise from Brandywine Airport has been raised as a general concern by residents in both West Goshen and East Goshen Townships. For West Goshen Township, current residential areas appear, for the most part, to be sufficiently distant from the end of the airport's runway to preclude major concerns with respect to noise from aircraft. The prospect of residential development of the Jerrehian property does underscore the issue of airport use and its compatibility with different types of urban uses. As development and redevelopment prospects in West Goshen Township are being considered, these compatibility questions must be carefully gauged. For example, the township may be interested in seeing areas to the west of Brandywine Airport develop with predominately non-residential and open space uses, as these are uses are generally considered more compatible with an airport use than residences.

Another significant noise source in the township is vehicular traffic, especially trucks and cars on US Route 202, which passes close to several residential areas in the township. If PennDOT should decide over the planning period to proceed with upgrades to the portion of US Route 202 that passes through the township (similar to their Sections 100 and 300 projects both north and south of the township), the construction of noise walls for selected parts of the corridor in West Goshen Township should accompany the highway improvements.

The Land Use Plan itself incorporates an extensive system of open space throughout the township, including buffers between incompatible land uses, such as between industrial and residential areas. The physical separation represented by buffers can be helpful in attenuating noise, although buffers alone may not be sufficient to reduce the transmission of unwanted sound.

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Introduction

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The West Goshen Township Comprehensive Plan provides an overall guide and framework for the future development of the community. The Plan anticipates and accommodates a variety of opportunities for growth in the township, while at the same time striving to protect the area's natural features and historic and open space character. The Plan designates appropriate locations for all land uses expected to be in the township over the next ten to twenty years. The Plan also sets the stage for specific actions that are necessary by all the different kinds of decision-makers in the township, school district, county, and State, in order to implement the Plan's recommendations.

This Plan must be used as a primary reference for evaluating and influencing future change in West Goshen Township. The procedures and actions in this chapter are provided, among other things, as the instructions for use of this Plan by the Board of Supervisors, Planning Commission, Zoning Hearing Board, and staff of the municipality.

Adoption of the Plan

The first and most basic step in the implementation of the West Goshen Township Comprehensive Plan is its official adoption by the Township Board of Supervisors. The Comprehensive Plan will then form the policy foundation for day-to-day decisions concerning development, as well as the framework for the zoning and subdivision ordinances that are the primary administrative tools for the control of growth and development in the municipality.

It is particularly important that the Plan be understood and endorsed by the officials of the township. Without such understanding and support, the Plan will not be useful nor will it be followed. Since, under Pennsylvania's Municipalities Planning Code (MPC), the right of approval for subdivision and land development is (with limited exceptions) exercised by municipalities, it follows that successful implementation of the West Goshen Township Comprehensive Plan relies to a very great extent on municipal follow-through on the ideas presented in the Plan. A prerequisite for Plan implementation is for the governing body, Planning Commission, Zoning Hearing Board, and municipal staff to advocate the recommendations in the Plan. If no one "signs on" to it, its recommendations can't be put into effect.

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Amendments to Municipal Land Development Regulations

The West Goshen Township Comprehensive Plan's recommendations with respect to land use, transportation, housing, community facilities, open space, historic and cultural resources, natural features, and other areas of concern also provide a basis for changes to the development regulations for the municipality. Zoning ordinance and subdivision and land development ordinance changes are among the most significant implementing tools for the Plan, translating its sometimes broad concepts into specific regulations with which to guide future development.

Zoning Changes

Zoning of land use is the single most important legal tool available to a municipality for management of growth and development. The West Goshen Township Zoning Ordinance should be updated and revised to reflect the goals, objectives, and policies of the Comprehensive Plan, and to effect its implementation. An updated Zoning Ordinance is the most efficient and effective device for ensuring that rezonings and subdivision and land development approvals are in conformance with the Comprehensive Plan. A number of revisions to the current zoning ordinance are recommended to contribute to the implementation of the Growth Management Plan. These are summarized below.

Developable Acreage as Base Site Area

The concept of “developable” tract acreage, as opposed to gross acreage, should be embraced by the West Goshen Township Zoning Ordinance. Developable acreage may exclude floodplains and wetlands from consideration in determining base site area density calculations, and may also integrate consideration of a site's extent and type of steep slopes in the calculation. Many municipalities have now enacted provisions to protect environmentally-sensitive features and to exclude or partially-exclude environmentally-sensitive lands from consideration in determining the “base site area” upon which the total number of permitted units or total permitted floor area for a tract is calculated. These kinds of provisions should be applicable in all zoning districts in the township, residential and non-residential.

The developable acreage concept is based on the principle that the natural resource character of any tract in the township should be taken into account in determining the intensity of development that can be supported. If a tract is relatively unencumbered by sensitive environmental features, there should be

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no (or few) inherent physical reasons to curtail development. If, on the other hand, a tract is dominated by such features, its appropriateness for development may be limited. Zoning provisions for all districts, residential and non-residential, should reflect these factors.

To implement the principles of developable tract acreage to residential zoning classifications, for example, all districts will need to have density limits based on overall density (“units per developable acre”) classifications, rather than individual lot-size requirements (“minimum 44,000 square-foot lots”). One advantage of this system is the manner in which a “units per acre” classification can act as a base density for a tract and, depending on development options available (see *Clustering*, below, for example), be capable of having a bonus applied. In this manner all tracts of land are treated equally, based on their natural resource character, but incentives to achieve certain community objectives may be provided in the form of a bonus to the numbers of units permitted.

Clustering in Residential Districts

A most basic change to the West Goshen Township Zoning Ordinance would be revised regulations to expand residential clustering provisions in order to maximize the amount of set-asides of permanent open space for recreational and resource protection purposes. Clustering is recommended particularly for sizable tracts that are still largely open.

While the existing West Goshen Township Zoning Ordinance permits forms of residential clustering in the R-3 Residential District under its open space provisions (Article XXV) and in the RGC Residential Golf Course District (Article XXIV), there are some shortcomings with this version of residential clustering. First, the cluster provision is only available in the aforementioned districts, not in all of the residential zoning districts. In addition, current open space requirements in districts that permit the cluster option are 45% for the open space provisions in the R-3 District and 50% for the Residential Golf Course District. In order to preserve open space in the township, it is recommended that the required percentage of open space in both of these districts be increased to 60% or higher.

The Growth Management Plan makes the case that permanent protection for remaining open space areas in the township can come about in a variety of ways, but that an essential technique is the use of cluster provisions for residential development. In order to encourage residential clustering, developers of land must be attracted to this method. Zoning regulations for residential districts need to be amended so that applicants prefer to pursue a cluster option rather than conventional lot-by-lot residential development and,

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in addition, prefer to cluster units to a high degree (above a basic cluster threshold) in order to permanently preserve greater proportions of land on a given tract.

There are some basic ways to attract developers to a residential cluster option for a given residential district. First, incentives such as bonuses to the conventional densities prescribed for the district(s) can be offered in return for specific community benefits to be achieved through the development process, such as very large percentages of a tract being set aside for permanent open space, preservation or restoration of historic sites and buildings, or preservation of scenic views. Second, developers of land may be given flexibility in the selection of housing types to be constructed.

As a greater percentage of a tract is considered for permanent protection, the acreage remaining for the construction of residential units decreases; in return for keeping more and more of the tract open, smaller and smaller lots for individual housing units become inevitable. This being the case, the prospect of permitting housing types other than just single-family detached units should at least be considered. If the goal is to try and permanently preserve as much open space as possible, then the tradeoff of accepting residential structural types other than single-family detached units, such as twins or townhouses, will be viewed as worthwhile. A potential benefit of permitting these alternative structural types may be a housing-type mix that is better tuned to the needs of township residents as they pass through the various stages of the life cycle.

The disposition of lands permanently protected from development on tracts built upon through the residential clustering process is a matter for the township to determine. Since the residential cluster option is noncompulsory, the township can impose requirements on applicants who chose to pursue it. Open space may be required to be offered for dedication to the township, although the township can elect not to accept it unless it desires to do so. By not accepting it, the township can mandate that the protection of permanent open space be the responsibility of a homeowner's association or a land conservation organization, or other types of arrangements.

New Districts to Create Interchange Activity and Mixed Use areas

The *Land Use Plan*, Section 3 of Chapter 3, makes wide-ranging recommendations concerning the proposed new Interchange Activity Center west of the US Route 202/Westtown Road interchange and the new Mixed Use area at US Route 322 and Phoenixville Pike. The Interchange Activity Center combines office, residential, service commercial and transportation-related uses at US Route 202 and Westtown Road. The Mixed Use area at the

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northwest corner of US Route 322 and Phoenixville Pike includes residential, office and retail service uses. Since the characteristics of these areas would be very different from the qualities supported by the present zoning districts for these locales, it follows that new zoning districts should be created and applied to the target locations.

Standards for Development in Employment Centers

As pointed out under Office/Business Park Uses in Section 3 of Chapter 3 and Transit-Friendly Corridors in Section 4 of Chapter 3, a key element to control traffic growth in the township may be the degree to which employees can be attracted to alternate modes of commuting such as car and van pools, shuttle buses, and transit. As development continues in the township, especially the QVC Studio and Brandywine Office Park area, office park and other employment locations need to have site layouts that anticipate access by these alternative modes.

For example, road and driveway systems need to provide the means for car and van pools, shuttle buses, and transit vehicles to reach the front doors of buildings, for quick and easy drop-off and pick-up of passengers. Buildings may need to be placed closer to roadways that have or may be expected to have SEPTA bus service, so that commuters arriving by transit are only a short distance from the building entrance when they alight from the bus. If the building entrance is not sited close to the bus route, then an all-weather walkway, perhaps covered, from the building to a bus shelter structure alongside the transit route may need to be provided.

It is expected that these kinds of provisions will be incorporated into the new Interchange Activity Center and Mixed Use zoning districts. Such standards should also be in district regulations for employment districts found elsewhere in the township, especially in the West Chester Pike.

Historic Resources Overlay District

As outlined in Section 7 of Chapter 3, an Historic Resource Overlay District that would encompass the entire township should be enacted as part of the township's zoning ordinance. The ordinance should be based upon the types or ordinances used in other municipalities in the region including West Whiteland Township and East Whiteland Township. These ordinances address dispersed historic resources in a suburban context and address a variety of historic preservation issues on a township-wide basis.

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Setbacks Along Collector and Arterial Roadways

The Land Use Plan emphasizes the establishment of “greenways” along major roadway corridors in order to implement the extensive system of open space, retain the ambiance of historic roads, and perpetuate views of an open landscape. One way to achieve greenways is through amendments to zoning regulations to increase required setbacks for buildings from collector and arterial roadways or designated historic routes. Increased setbacks may also be gained through incentive provisions within the development regulations that serve as inducements for developers of land to increase roadway corridor setbacks.

Recreational Set-Asides/Fee-in-Lieu

Some natural resource areas of a tract that may not be suitable for buildings or similar intensive use may be usable in other ways. To meet the need for recreational use areas by residents of new housing developments (and employees, in the case of non-residential development), tracts undergoing development should have areas set aside for recreational use. Some of these areas may be in natural resource portions of a tract that can support these kinds of uses. The developable acreage concept is consistent with the principle of providing some portion of a tract undergoing development as a permanent recreational resource for the residents or users of that tract; conventional lot-by-lot residential development does not inherently recognize the need to provide such areas.

In addition to providing areas for a permanent open space and recreational resource for new residential and non-residential developments, recreational set-asides for tracts undergoing development also add amenity value to the community that can be a help in gaining high-quality development and enhance property values for bordering and neighboring dwellings.

The existing West Goshen Township Subdivision and Land Development Ordinance contains provisions for set-asides for recreational and open space lands for residential development. These provisions should be extended to cover non-residential developments and the “fee-in-lieu” provisions should be similarly made applicable to non-residential development.

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Protection of Environmental Features

The existing Zoning Ordinance of West Goshen Township contains provisions for the protection of environmentally-sensitive features, including Slope Controls. An Environmental Protection article should be incorporated into the West Goshen Township Zoning Ordinance, containing provisions for the protection of both natural and man-made resources. Basic contents would incorporate the existing slope regulations and add new provisions to cover riparian buffers and historic resources.

Other Potential Zoning Map Changes

There are some areas of the township where zoning classifications as shown in the current West Goshen Township Zoning Map may be inconsistent with the future land use designations of the Land Use Plan. Zoning map changes may be needed to ensure that the intentions of the Comprehensive Plan are carried through the planning period.

One area where a zoning change should occur is the area at the southwest corner of Phoenixville Pike and US Route 322. Since the area is designated on the growth management plan for medium- to high-density housing, the zoning should change from R-3 to R-4 to accommodate higher density housing.

Another area would be the various tracts intended for public schools. The current West Goshen Township Zoning Map designates all of these tracts as part of residential districts, although “public schools” are a special exception use in these kinds of districts. Schools are important resources for the community and their sites are envisioned as long-term special-identity tracts in the township. In order to confirm that they remain places for education and publicly-accessible, an *N-Neighborhood Schools* zoning classification should be incorporated into the Zoning Ordinance text and Zoning Map.

Zoning Ordinance Contents and Format

In general, planning and zoning regulations that may be relevant to applications for building or use permits should be found in one place — the Zoning Ordinance. An application may not qualify as a land development but may still need to be cognizant of, for example, floodplains and steep slopes. For this reason, the Zoning Ordinance should be highly inclusive of potentially-relevant regulations. An applicant for a building or use permit who reviews the Zoning Ordinance should be confident that all relevant planning and zoning regulations are contained in it.

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Development regulations in the Zoning Ordinance are often dense and wordy, making use of the document difficult. The Zoning Ordinance can be made more “user-friendly” by presenting most permitted use and development standards information in tables rather than long descriptive texts, for ease of use and to permit side-by-side comparison of standards among related districts. Benefits of this approach include an easy understanding of the ordinance by residents and more efficient administration by the township.

Subdivision Regulations

Subdivision regulations are second only to the zoning ordinance as a tool for managing growth, especially in influencing the quality of new developments. These regulations detail the standards of any required improvements accompanying construction. The West Goshen Township Comprehensive Plan makes several recommendations which affect street access and curb cuts, landscaping and open space, and other improvements. Adoption of these recommendations within the West Goshen Township Subdivision and Land Development Ordinance will implement better quality development.

Potentially wide-ranging changes to Subdivision and Land Development Ordinance standards are suggested by the Plan’s recommendations with respect to residential streets standards. For example, a more pedestrian-oriented area should have road right-of-way and cartway widths that are different from conventional areas, with sidewalk requirements, tighter horizontal curve radii, and revised parking regulations and sight-distance standards, similar to those outlined in the American Society of Civil Engineers, National Association of Homebuilders, and Urban Land Institute publication Residential Streets, 2nd ed. and increasingly followed in many municipalities trying to create more “pedestrian-friendly” neighborhoods.

Pennsylvania Watershed Act 167 Stormwater Management Plans and similar studies by area counties and municipalities have been examining potential effects of land development upon discharge rates into the creeks and their tributary streams. Such studies will likely produce a set of recommendations for changes to municipal subdivision and land development regulations in the county. In turn, the West Goshen Township Subdivision and Land Development Ordinance may need to be amended to reflect these recommendations, including content to assure that developments use the best available technology to minimize off-site stormwater runoff, increase on-site infiltration, minimize off-site discharge of pollutants, and encourage natural filtration functions. “Best management practices” may include measures such as detention and retention basins, recharge trenches, porous paving and piping, contour terraces, and swales.

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Further Planning Studies

Urban Design Plans for the US Route 202/Westtown Interchange Activity Center and the US Route 322/Phoenixville Pike Mixed Use area: The Land Use Plan's direction for the future of these two areas will require follow-up studies. For example, recommendations concerning these areas mean that these areas should be looked at in greater detail, focusing on road circulation; land use; vehicular and pedestrian circulation; parking; building scale, placement, orientation, and character; landscaping; and lighting. Once these detailed plans have been formulated, West Goshen Township will be in a position to publicize and promote them and to solicit property owner and developer interest in implementation.

Other Potential Studies: The Commonwealth of Pennsylvania has recently enacted legislation that significantly expands opportunities for municipalities to undertake planning activities jointly. Under Act 68, signed into law on June 22, 2000, municipalities may form joint agreements to designate "growth areas" for future development. Though intermunicipal planning, growth may be directed to a specific area within the joint area, obviating the need for each municipality to provide for every type of residential, commercial, and industrial use. Other provisions of the Act provide additional incentives for municipalities to engage in joint planning. West Goshen Township should consider whether these incentives make intergovernmental planning attractive and worth pursuing.

In the past, West Goshen Township has participated in transportation and land use studies by the West Chester Regional Planning Commission, a regional advisory group consisting of municipalities in the West Chester region. West Goshen Township should continue to participate as part of this commission on issues that impact the township.

Using the Plan

After official adoption, the use of the Comprehensive Plan as a reference document on a frequent basis becomes the most important part of the Comprehensive Plan implementation program. Neither the Growth Management Plan nor the zoning and subdivision and land development ordinances can completely anticipate or absolutely control the future growth of the township. Future development will be determined by day-to-day decisions made by the West Goshen Township Board of Supervisors, Planning Commission, Zoning Hearing Board, and municipal staff, largely in

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response to proposals made by private developers. In each situation where West Goshen Township must respond to a specific development proposal, the Comprehensive Plan should be used as a reference to guide the township in the evaluation of the proposal.

The natural resource maps, part of the Comprehensive Plan, are one of the first sources to be referred to in considering any development proposal. The maps should be able to identify potential problem areas. In some cases, the developer will be required to supply more precise information on the natural determinants of development suitability. Technical expertise of township, county, and State agency staff and consultants will be needed to determine whether any potential problems so identified can be overcome.

The Land Use Plan should be consulted early in the review of any development proposal. If the proposed use corresponds to that shown on the Land Use Plan, the major issues will concern design considerations, technical questions, and guarantees of performance on the part of the developer. If the proposed use differs from that shown on the Land Use Plan, the proposal will require the most careful kind of scrutiny. Despite the effort to make the Growth Management Plan as “comprehensive” as possible, it is conceivable that uses will be proposed in the township over the planning period that do not fit comfortably into one of the use categories outlined in the Land Use Plan. It is critical that, in this event, the municipality consider fully all of the planning implications of any such proposed uses.

In addition to using the Growth Management Plan for more day-to-day technical consulting, the plan should be reviewed periodically and updated, if necessary. While the comprehensive plan uses twenty years as a planning horizon, the Pennsylvania Municipalities Planning Code indicates that the plan should be reviewed at least every ten years.

Information Gathering, Processing, Storage and Retrieval

The Township makes extensive use of current and emerging computer and data processing technology for processing, storing, and retrieving information regarding subdivision, land development, and zoning applications and approvals. The Township has developed a mature Geographic Information System application with direct links to computerized document management, permit management, and computer aided drawing systems. All subdivision and land development drawings are submitted in both digital and hardcopy formats. Applications and other pertinent paper documents are scanned into the document management system and stored in both the native and electronic formats. The signature sheets of approved record drawings are scanned and

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stored in both hardcopy and electronic formats. Documents and drawings are linked electronically in the GIS system to their subject parcels for ready access. Data is updated on a daily basis and the GIS and various management systems are upgraded as significant technology improvements occur. This system provides secure and efficient storage and retrieval of this data for both Township staff and the public.

The Planning Commission should ensure that it submits annual reports to its governing body, summarizing development activities in the municipality. The compilation and publication of the following data would be useful in documenting the character and quantity of change in the community over time and would be extremely useful in the day-to-day administration of its planning and zoning activities. The items recommended for inclusion in the report are as follows:

- Population estimates
- School population
- Employment estimates
- Development activity summary (new development & redevelopment)
- Residential development
 - New housing units, by type
 - Acres of residential development
 - Acres of private and dedicated open space
- New nonresidential construction
 - Acres of new development by land use
 - Gross floor area by use
- Changes of zoning

Planning Commission Annual Reviews

The Planning Commission should, as an annual agenda item, formally review the annual long-range capital improvements program for the municipality to ensure that physical improvements that are being programmed are in accordance with the overall intent of the Comprehensive Plan. The review should also include consideration of items which are called for by the Comprehensive Plan. A formal review and recommendation concerning the long-range capital improvements program should be forwarded to the governing body prior to consideration of the adoption of the long-range capital improvements program.

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A second annual agenda item should be the Planning Commission Annual Plan, which should:

- Review the degree of accomplishment of the previous year's objectives;
- Summarize studies or projects finished or underway;
- Identify Comprehensive Plan recommendations that are planned to be addressed in the next year;
- Plan for future projects or studies, including issues that the Planning Commission intends to review or initiate and ordinances that require review.

TABLE 4.1
Action Plan for Implementation of the Comprehensive Plan

<u>Action</u>	<u>Timing</u>	<u>Primary Responsible Parties</u>
1. Adopt the Plan	Immediate	<ul style="list-style-type: none">• Supervisors
2. Establish Historical Commission	Within 1 yr.	<ul style="list-style-type: none">• Supervisors
3. Update Cultural Resources Inventory	Within 1 yr.	<ul style="list-style-type: none">• Historical Commission
4. Update Zoning Ordinance	Within 2 yrs.	<ul style="list-style-type: none">• Regulations Update Task Force
5. Update Subdivision & Land Development Ordinance	Within 2 yrs.	<ul style="list-style-type: none">• Regulations Update Task Force
6. Update Parks, Recreation, & Open Space Plan	Within 2 yrs.	<ul style="list-style-type: none">• Parks & Recreation Board
7. Prepare Urban Design Plans for Interchange Activity /Mixed Use Areas	Within 3 yrs.	<ul style="list-style-type: none">• Planning Commission
8. Implement a Trail System	Within 6 yrs.	<ul style="list-style-type: none">• Parks & Recreation Board
9. Implement Interchange Activity /Mixed Use Areas Urban Design Plans	Within 6 yrs.	<ul style="list-style-type: none">• Supervisors
10. Review the Comprehensive Plan, Consider an Update	Within 10 yrs.	<ul style="list-style-type: none">• Planning Commission