

# West-Cain-Township

Martins Corner ★

★ Compass

Hibernia ★

Wagontown ★

*Established - 1744*

CHESTER COUNTY, PENNSYLVANIA

# COMPREHENSIVE PLAN

**WEST CALN TOWNSHIP**  
***COMPREHENSIVE PLAN UPDATE***

***March 25, 1998***

**Prepared By:**

**WEST CALN TOWNSHIP COMPREHENSIVE PLAN TASK FORCE**

# **WEST CALN TOWNSHIP**

## **Comprehensive Plan Update**

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## INTRODUCTION TO PLAN

The purpose of this Comprehensive Plan is to update the Township's Comprehensive Plan of 1974. It is intended to provide a solid rationale and foundation for municipal land use decisions in West Caln Township and to identify the policies to guide this decision-making over the next two decades. To develop a successful plan update that meets municipal goals and objectives, a thorough review and analysis of the various factors affecting land and its use is required. These factors include the Township's physical qualities, location and role within the region, demographic characteristics, natural and historic resources, community services and facilities, and transportation and circulation network. Together, these elements comprise the "inventory chapters" of the Comprehensive Plan Update. Accommodating the amount and type of growth that the Township envisions over the next twenty years was a major consideration in preparing this plan update.

This process has resulted in a series of plan elements including a Future Land Use Plan for the Township that accommodates new development and directs growth to appropriate areas, while simultaneously protecting natural and environmental features that contribute to West Caln's unique rural character. The Future Land Use Plan is supplemented by the Natural and Historic Resources Plan, Community Facilities Plan, and Transportation and Circulation Plan. These elements together comprise the "plan recommendation chapters" of the document. Each of these chapters contain a series of actions that are designed to implement the Plan and address pertinent goals and objectives. The time frame for addressing the recommendations, as well as suggested implementation mechanisms, are included in the final chapter.

The planning process that directed the development of this Comprehensive Plan Update was lead by a municipal Task Force consisting of members of the Board of Supervisors, the Planning Commission, and the Zoning Hearing Board. To formulate the policy contained in the Plan, the Task Force evaluated the data included in the inventory chapters in conjunction with the policy contained in other Township planning documents and ordinances, and determined where revisions were warranted. This process relied on applicable data received from the resident survey (1994) used to develop the Open Space, Recreation and Environmental Resources Plan.

This Plan Update was completed and adopted in compliance with the provisions of the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, as amended. This legislation enables municipal land use controls in Pennsylvania and provides the framework for developing and implementing plans and land use regulations. It enables municipalities to produce and adopt comprehensive plans and to regulate development by means including zoning and subdivision and land development ordinances.

Article III of the MPC specifically addresses the preparation and adoption of a comprehensive plan and outlines the components to be included. These components, which include maps, charts and textual matter, are summarized as follows:

- A statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development.
- A plan for land use, which may include provisions for the amount, intensity, character and timing of land proposed for residence, industry, business, agricultural, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains and other areas of special hazards and other similar uses.



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- A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels.
  - A plan for movement of people and goods, which may include expressways, highways, local street systems, parking facilities, pedestrian and bikeway systems, public transit routes, terminals, airfields, port facilities, railroad facilities and other similar facilities or uses.
  - A plan for community facilities and utilities, which may include public and private education, recreation, municipal buildings, fire and police stations, libraries, hospitals, water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, and flood plain management, utility corridors and associated facilities, and other similar facilities or uses.
  - A statement of the interrelationships among the various plan components, which may include an estimate of the environmental, energy conservation, fiscal, economic development and social consequences on the municipality.
  - A discussion of short and long range plan implementation strategies, which may include implications for capital improvements programming, new or updated development regulations, and identification of public funds potentially available.
  - A statement indicating the relationship of the existing and proposed development of the municipality to the existing and proposed development and plans in contiguous municipalities, to the objectives and plans for development in the county of which it is a part and to regional trends.

Although a comprehensive plan is subject to the legal requirements specified in the MPC, it is not a legal document in and of itself. It is a policy document intended to define the Township's vision of its future and to identify the recommended actions to help it achieve this vision. The zoning ordinance, the subdivision and land development ordinance and sewage facilities plan, conversely, are examples of the legal means through which the recommended actions contained in a comprehensive plan are implemented. These ordinances will be reviewed and updated upon the adoption of this Plan Update.

The West Caln Township Comprehensive Plan Update has a twenty year time horizon; however, the policies should be reviewed periodically to ensure that they continue to reflect current views and adequately address land use issues and concerns. Implementing the recommendations contained in this Plan requires a significant commitment on the part of the Township, one that will lead, however, to accomplishing the goals and objectives outlined and achieving its vision of the future.

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## Chapter One

### MUNICIPAL GOALS AND OBJECTIVES

The goals and objectives identified by West Caln Township create the foundation for this Comprehensive Plan Update. The goals summarize the aspirations of the Township in terms of land use and future development and serve to guide the development of the recommendations contained in each plan element.

The goals and objectives were formulated following a review of those contained in the Comprehensive Plan (1974) and the Open Space, Recreation and Environmental Resources Plan (1995), as well as the results of the community survey conducted in 1994 as part of the open space and recreation planning process. The goals and objectives, determined by the Comprehensive Plan Update Task Force as representing the views of Township residents, are categorized by plan element and summarized as follows:

#### LAND USE AND HOUSING GOALS AND OBJECTIVES

**Allow for orderly commercial and industrial development that meets the current and future needs of Township residents and contributes to the Township's economic vitality.**

- Ensure that new commercial and industrial development conforms to zoning regulations, and that sites are developed in accordance with adopted regulations.
- Focus commercial and industrial development in areas of the Township that are best able to accommodate such uses.
- Encourage the type of commercial and industrial development that is most compatible with existing businesses in the Township and in the Region.
- Require commercial and industrial sites to be developed in accordance with design standards that are intended to minimize the impact on surrounding land uses.

**Provide for the development of a variety of housing types and encourage innovative and creative site design that seeks to retain the landscape's natural and historic features.**

- Focus new housing development in those areas best able to accommodate the development in terms of existing infrastructure.
- Ensure that regulatory mechanisms are in place to protect natural and historic features existing on sites proposed for new development.
- Provide for flexibility in land use ordinances and regulations to encourage innovative site design and alternatives to standard subdivisions.
- Consider design standards for higher density housing that serve to blend new development into the existing built environment.
- Work cooperatively with developers to evaluate design alternatives that serve to protect natural or scenic qualities.

**NATURAL AND HISTORIC RESOURCES PROTECTION GOALS AND OBJECTIVES**

**Preserve the rural character of the Township by protecting those natural, scenic and historic features that contribute to that unique character and the local quality of life.**

- Respect historic patterns of development when considering future land uses.
- Evaluate the effectiveness of measures currently in place intended to protect natural and historic features and consider new alternatives.
- Identify and evaluate historic resources, and investigate methods of encouraging their preservation through both public and private initiatives.
- Consider environmental factors when determining future land uses.
- Preserve natural resources, including woodlands, wetlands, steep slopes, and agricultural soils by limiting actions that could damage these resources.

**Preserve agricultural land and prime soils, thereby supporting the agricultural industry in the Township.**

- Evaluate protective measures intended to conserve prime agricultural soils.
- Consider the needs of the agricultural industry when making land use decisions.
- Determine effective methods of reducing development pressure on agricultural lands.

**Use new and innovative land management tools and techniques to promote the preservation and protection of the natural, scenic and historic resources.**

- Examine existing regulatory provisions to determine gaps in protective measures and implement changes where needed.
- Evaluate the potential of such techniques as a village protection program, transferable development rights program, and historic overlay district for the purpose of protecting existing landscape features.
- Monitor land development to ensure compliance with existing standards.
- Provide information to residents on the long and short term benefits of historic and environmental protection measures, and the resulting impact on the local quality of life.

**COMMUNITY SERVICES AND FACILITIES GOALS AND OBJECTIVES**

**Continue to provide for the development of community facilities and services that meet the physical and social needs of current and future residents.**

- Ensure that Township residents have a high quality water supply in the quantities sufficient to meet present and future needs.
- Review the current sewage disposal practices and evaluate methods that could improve efficiency and reduce the potential for contamination.

- Review solid waste disposal and consider ways to reduce volume and improve efficiency.
- Continue to seek to provide recreational opportunities and secure open space that will enhance the quality of life for Township residents.
- Review the effectiveness of emergency services including police, fire and ambulance services and consider modifications where appropriate.
- Plan for the development of community facilities and services that address the social, physical and recreational needs of Township residents.

### **TRANSPORTATION AND CIRCULATION GOALS AND OBJECTIVES**

**Maintain a circulation system that is coordinated with the current and projected future land use and safely provides for access to all parts of the Township.**

- Identify hazardous road segments and plan for improvements.
- Review the functional classification system and make modifications as necessary in order to facilitate land use planning.
- Continue the maintenance and improvements of roads to ensure traffic safety and efficiency.

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## Chapter Two

### REGIONAL INFLUENCES

Regional factors influence the development pattern of the Township. This chapter identifies and assesses the regional influences as they exist in central Chester County, and describes how they specifically relate to West Caln Township.

A regional influence can be naturally occurring or manmade. Factors that most influence West Caln include the regional transportation network, the trends in housing construction, and the location of key natural and environmental features. Services or facilities of a regional nature that draw from a broad area can also influence local policy. Hibernia Park is an example of such a facility that has an effect on the Township.

Along with those factors listed, the land use patterns and planning policies of surrounding municipalities must be considered. The rate of growth, the location of existing land uses, and the type of development anticipated as indicated by the future land use plans, must be evaluated in order to determine how they could affect the land use policies of West Caln Township. A description of the regional influences impacting West Caln are described in this chapter. **Map 2-1** illustrates the Township's location within the region.

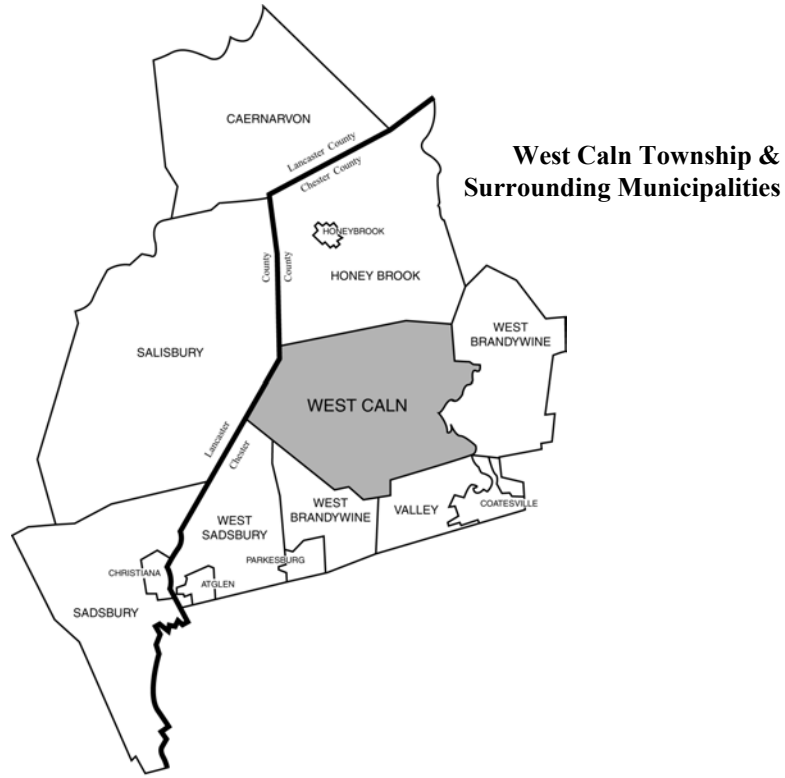
#### GEOGRAPHIC SETTING

West Caln is located in the northwest quadrant of Chester County, north of Route 30, the primary east-west transportation corridor linking the City of Philadelphia with the City of Lancaster and points west (Map 2-1). Despite the Township's close proximity to Route 30, West Caln remains primarily a rural, agricultural municipality. Much of the existing development is located along the southern boundary between West Caln Township and Valley Township, and along major road frontages. In addition to Valley Township, five other Chester County municipalities border West Caln: they are West Brandywine, Sadsbury, West Sadsbury and Honey Brook Townships, and the City of Coatesville. West Caln Township's western border also forms the boundary between Chester County and Lancaster County. The bordering municipality in Lancaster County is Salisbury Township.

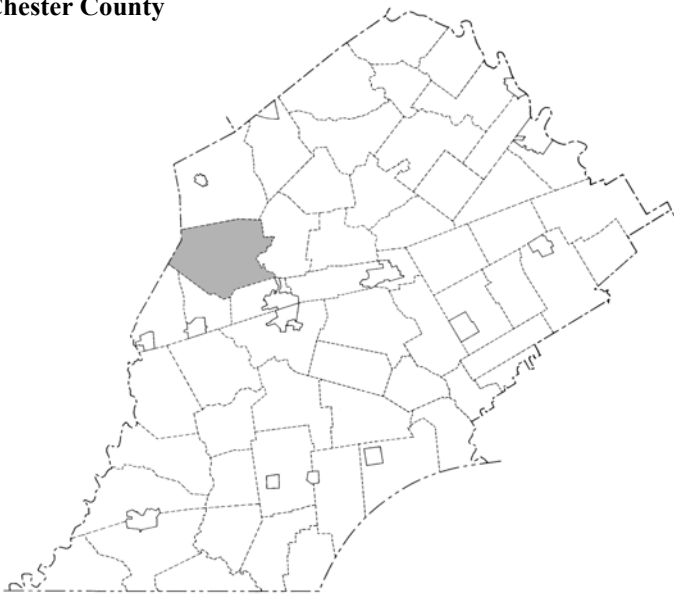
West Caln is 21.8 square miles in area and represents the third largest Township in Chester County. The 1990 population was reported at 6,143 while the estimated 1995 population, according to the Chester County Planning Commission, was 7,240, equating to an approximate density of 332 people per square mile. The topography is gently rolling, accentuated by the State Hills in the southwest quadrant and the Barren Hills, traversing the Township's central region. Most of West Caln drains to the West Branch of the Brandywine Creek, which forms the eastern boundary of the Township. The remaining area in the western sector drains to the Pequea Creek.

The nearest urbanized municipality to West Caln is the City of Coatesville. One of the larger urban municipalities in Chester County, Coatesville historically served as the primary commercial and industrial center in central Chester County. Although West Caln Township does not share a lengthy boundary with Coatesville, it is none-the-less impacted by the densely populated city. Suburban residential development radiating from Coatesville is evidenced in the southern part of the Township and this development trend will likely continue. Suburban commercial and office development located in and around Coatesville provide important commercial and retail services to West Caln residents, and the Coatesville Reservoir, the City's water supply, is located in West Caln Township.

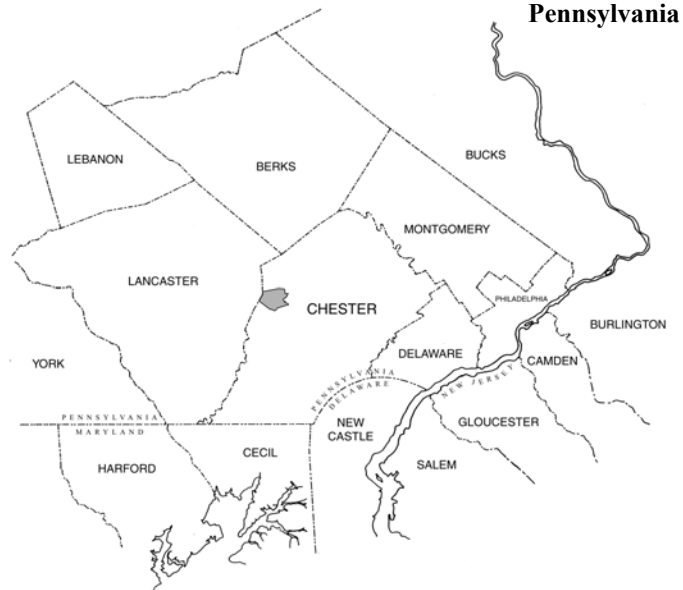
**MAP 2-1 REGIONAL LOCATION**



**West Caln in Chester County**



**West Caln in Southeastern Pennsylvania**



## **CIRCULATION SYSTEM**

Because West Caln Township is a rural community, most traffic travels through the Township along three highway corridors. The highest volume roadway that traverses West Caln Township is the Route 30 by-pass, which passes through the very southern tip. Because only a very small portion of this roadway is located in the Township, it has not yet greatly affected traffic patterns. However, the opening of the Route 30 by-pass through Exton in 1995 has increased general traffic on this roadway, since travel is now relatively unencumbered from western Chester County all the way through to Route 202. Gradual increases in traffic as a result of this recent highway improvement are beginning to occur and it is likely this trend will continue and will ultimately impact West Caln Township.

The major east-west route through West Caln is Route 340. It is a State highway with two lanes that traverses the Township from southeast to northwest, linking the interior of the Township with Route 82 and Route 10, both of which lead to Route 30. Route 340, historically known as King's Highway, was the first corridor linking Philadelphia with Lancaster, and was heavily traveled until the early 1800s. During this time Route 30 became the predominant corridor, and the importance of Route 340 declined in terms of intra-county travel. Other important east-west routes include Hill Road and Telegraph Road in the northern part of the Township, both of which link with Route 10.

The primary north-south route is Route 10, also a State, two-lane highway. This roadway traverses the Township through the western half, linking Honey Brook and northern points to Oxford and U.S. Route 1 in southern Chester County. Route 10 intersects with Route 340 at the village of Compass, one of the Township's population centers.

The remaining roads in the Township are local roads which serve primarily as residential access. Most roadways are in relatively good condition and only small segments of the local network remain unpaved. The recently completed reservoir at Hibernia County Park has changed some traditional traffic patterns, and circulation in and around Hibernia will probably continue to change for the near future as local residents find and establish alternative routes.

The transportation and circulation system is further analyzed in Chapter 6.

## **SHARED NATURAL RESOURCES**

Effective planning for West Caln requires that natural resources be viewed from a broad perspective. Topographical features, the underlying geology, the watershed and drainage patterns, the soil types and locations, are all physical characteristics of the natural landscape that extend beyond political boundaries. Most of the natural resources present in West Caln Township extend into and are shared by the surrounding municipalities.

West Caln Township lies just north of the Chester Valley, the dominant geological feature of the County. Chester Valley bisects the County beginning at Tredyffrin Township and progresses west through the Borough of Atglen. The Chester Valley is underlain by limestone, which formed the basis for the development of prime agricultural soils. The soils throughout the Chester Valley are very high quality and ideal for most crop production. The Valley also divides the County in terms of geological characteristics, with the municipalities to the north sharing common features, while those to the south share a different set of features.

The underlying geology of the south and east regions of West Caln Township, along with neighboring municipalities to the east and the north, contains large percentages of gneiss, and is characterized by the gently rolling topography. These areas tend to have good drainage, but groundwater yields only in the low to medium range.

The north and north central regions of West Caln Township are dominated by underlying rock formations of hard quartzite and quartz schist termed the Chickies Formation. Slopes tend to be slightly steeper, also with good surface drainage. Ground water yields tend to be in the medium range. This formation is predominant through the central part of the Township.

The topography is a major determinant of groundwater yields because the type of rock, in terms of density and permeability, and the number and likelihood of fractures and fissures dictate the ease by which water can be extracted. Although some of the geological formations underlying West Caln can produce water in the medium ranges, the area overall has generally low yields. This factor can dramatically affect development patterns and planning, particularly for residential density.

Natural resources are further analyzed in Chapter 4.

### **PLANNING PROGRAMS OF ADJACENT MUNICIPALITIES**

Municipalities can be greatly impacted by the planning policies and practices of adjacent municipalities. Planning policies can impact the entire development pattern of the region, while specific zoning decisions and land use practices, particularly along the boundaries, can present land use conflicts. Fortunately, those municipalities adjacent to West Caln Township have similar philosophies and characteristics so the potential for conflict is somewhat minimized. The planning programs of those municipalities adjacent to West Caln have been analyzed and described as follows:

**West Brandywine Township:** West Caln Township shares its eastern border with West Brandywine Township. The West Branch of the Brandywine Creek serves as the boundary. West Brandywine Township is approximately 13 square miles in size; the 1990 population was reported to be 5,984, equating to a density of 460 persons per square mile.

Similar to West Caln Township, West Brandywine is primarily a residential municipality with most of the development located long the road frontages. A significant percentage of the Township is still being farmed with an equally significant percentage in woodlands. Development is concentrated in the southern regions of the Township and in the several rural centers that dot the landscape. West Brandywine Township is located to the north of the City of Coatesville, which meets many of the service and retail needs of the residents.

West Brandywine Township has six residential zoning districts providing housing opportunities that span from single family detached to multiple family units to mobile home parks. The areas adjacent to West Caln Township are zoned agricultural/residential uses at a minimum density of one unit per 60,000 square feet (for non-agricultural uses). A higher density residential zoning of one unit per 40,000 square feet is located in sections along the West Caln border; however, this zoning district is physically separated from West Caln by the Brandywine Creek. Although Hibernia Park and the Brandywine Creek both serve to buffer West Caln Township from West Brandywine, these zoning districts in West Brandywine do mirror the development anticipated in West Caln.

Planning for the West Brandywine Creek corridor and development associated with the Hibernia County Park are land use issues shared by West Caln and West Brandywine Townships.

**Honey Brook Township:** Located to the north of West Caln Township, Honey Brook Township shares its entire southern border with West Caln. The Township is 25.1 square miles in size and had a 1990 population of 5,449, equating to 217 persons per square mile.



Honey Brook Township is truly an agricultural municipality. It contains large regions of prime agricultural soils, most of which are being farmed. Several rural centers, along with the Borough of Honey Brook located in the center of the Township, provide the necessary services to the agricultural community. Many of the existing farms are owned by members of the Amish community which influences the municipality both physically and culturally.

To encourage farming and protect prime soils, most of Honey Brook Township is zoned for agriculture. Honey Brook Township is revising its 1979 zoning ordinance to create two agricultural districts. The present district will remain unchanged in density and area requirements, but the central section will be restricted with only 20 percent of existing tract eligible for development. This district will become the agricultural preserve district. Agricultural zoning is located along the border of West Caln Township for the entire length. Residential zoning at higher densities is concentrated around the Borough of Honey Brook in the center of the Township.

Protection of the headwaters area of West Brandywine Creek and Route 10 corridor planning are land use issues shared by West Caln and Honey Brook Townships.

**West Sadsbury Township:** West Caln Township shares a length of its western boundary with West Sadsbury; both of these municipalities share extensive borders with Lancaster County. West Sadsbury is 10.7 square miles in size and reported a 1990 population of 2,160 for a density of approximately 202 persons per square mile.

Like the surrounding municipalities, the Township of West Sadsbury is mainly rural. A large percentage of the Township is zoned for agriculture by means of a sliding scale agricultural zoning district that factors in a time frame as well as a lot limit. Three residential districts provide for a range of housing opportunities; the rural district allows for single family detached structures on three acre lots, the low density residential district allows single family detached residents on one acre lots, and the medium density residential district allows for varied housing forms. The area bordering West Caln Township is zoned for rural residential uses with three acre minimum lot sizes.

The West Sadsbury Township zoning ordinance clearly recognizes the importance of environmental protection. The ordinance addresses this topic by specifying regulatory measures for floodplains, steep slopes, aquifers, scenic roads and historic features.

**Sadsbury Township:** Sadsbury Township is located between West Sadsbury and Valley Townships, and shares the southern border of West Caln Township with these municipalities. Sadsbury is 6.2 square miles in size with a 1990 population of 2,510 persons resulting in a density of 405 persons per square mile.

Sadsbury shares the rural characteristics of its neighbors. It is a primarily rural community with large areas of land in active agricultural production. The residential development is concentrated in the rural centers and along road frontages. The Borough of Parkesburg provides some services to the rural residents.

The Township's zoning ordinance has low, medium and high density residential districts providing a range of housing opportunities. The purpose of the rural residential district is to conserve farmland. The standard lot size for a single family residential structure in this district is one unit per 60,000 square feet. A woodland conservation district serves to protect remaining wooded areas; the minimum standard lot size in this district is one unit per 100,000 square feet. Sadsbury also has three commercial districts, each with a specific purpose, and one industrial district.

In terms of environmental regulations, the Sadsbury Township zoning ordinance contains standard floodplain regulations, but also has an entire district devoted to woodland conservation. The zoning districts bordering West Caln Township are mainly rural residential with a small sections of medium density residential zoning and industrial zoning in the northwest corner adjacent to Route 30.

Planning within the Route 30 by-pass and development at the interchange are land use issues shared by West Caln and Sadsbury Township.

**Valley Township:** West Caln Township shares its southeast boundary with Valley Township. Route 30, a major east-west transportation corridor, extends through the length of Valley Township just south of the border. Valley Township reported a 1990 population of 4,007 persons and a land area of 6 square miles. The density per square mile is approximately 668 persons.

Valley Township was traditionally been a rural municipality and farming is still a land use in the western regions. Its proximity to Route 30 and to the City of Coatesville, a major urban center, has led to Valley's gradual suburbanization. Most of the residential development has taken place in the eastern half of the Township and along major transportation routes. Commercial and industrial development is also locating along these transportation routes in four commercial zoning districts and one industrial zone. The Chester County Airport (G.O. Carlson Airport) is also located in Valley Township.

There are two main residential zoning classifications in Valley Township: a lower density district designed to accommodate single family detached residential uses, and a higher density district permitting other types of housing including multiple-family units. The lot sizes in both districts vary with the availability of water and sewer. Residential uses are also permitted in the conservation zone, a district intended to protect areas with sensitive environmental features. The minimum lot size in this district is one unit per acre; cluster development and planned development are offered as alternatives. The land area along the West Caln boundary is zoned mainly for low density residential uses.

Commercial and industrial development within the Route 30 corridor, as well as increased traffic, are land use issues shared by West Caln and Valley Township.

**Salisbury Township, Lancaster County:** The western boundary of West Caln Township also serves as the boundary between Chester and Lancaster Counties. Salisbury is the second largest Township in Lancaster County, with a land area of 48 square miles. The 1990 population was reported at 9100, for density of 189 persons per square mile.

A large percentage of the land in Salisbury Township contains prime agricultural soils, and much of the Township is zoned for agriculture. Residential uses are permitted in the agricultural district at one unit per two acres; however, lots can only be subdivided for conveyance to family members.

The Salisbury Township zoning ordinance contains three residential districts; the rural residential district permits one unit per three acres, and both the R-1 and R-2 districts permit one unit per one acre. Commercial and industrial districts have been designated adjacent to the major transportation routes. Rural residential and low density residential zoning are found along the border with West Caln Township.

**City of Coatesville:** Although West Caln shares a very minor border with Coatesville, the City influences development in the Township. Coatesville has a land area of 1.9 square miles, and according to the 1990 census, a population of 11,038. It is one of the oldest and most densely populated municipalities in Chester County with a density, according to the 1990 census, of 5810 persons per square mile. It developed as a steel town and is still home to a major steel company. The retail and commercial services in and around Coatesville meet many of the needs of West Caln residents, reducing the pressure for these types of uses in the Township. As the largest urban center in the region, Coatesville offers community services and facilities in a centralized location. The proximity of West Caln Township to Coatesville has reduced the development pressure for certain types of land uses, including commercial and industrial needs, but the suburbanization of Coatesville, combined with the proximity to Route 30, has, and will continue to affect residential development patterns, particularly in the southeast quadrant.

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Public water and sewer service, development adjacent to the Coatesville Reservoir, and the proximity of retail and commercial services are land use issues common to West Caln Township and the City of Coatesville.

### **MULTI-MUNICIPAL PLANNING EFFORTS**

Over the past decade, the need to plan on a multi-municipal basis has become more and more evident. With population increasing and development pressure on the rise, the need to take a regional perspective not only in terms of land use, but in municipal functions, is necessary to ensure proper community development. Municipalities that work cooperatively in developing land use plans, jointly provide for community services and facilities, and participate together in protecting natural and cultural resources, provide a more livable environment and a better quality of life for their residents.

Multi-municipal planning in Chester County is becoming more important as the benefits become more evident. Although no regional group has progressed to the point of multi-municipal zoning, many joint initiatives have been implemented through regional bodies. Regional comprehensive plans, joint purchasing agreements, shared community services, regional transportation studies and regional approaches to environmental issues are just some examples of these positive initiatives.

There are currently four active regional planning bodies in Chester County. These include the West Chester Region, the Central Region, the Kennett Region and the Federation of Northern Chester County Communities.

West Caln Township is currently not a member of a regional planning body, but it does lie in close proximity to the Central Region which consists of East Fallowfield Township, the City of Coatesville, and South Coatesville and Modena Boroughs. The Township is heavily influenced by these municipalities, as the City and the Boroughs comprise the urban center nearest to West Caln that contains the regional facilities and services commonly used by the residents of the neighboring municipalities. The Central Region has just completed a regional comprehensive plan and is evaluating future activities.

### **REGIONAL FACILITIES**

There are several regional facilities located in West Caln Township, probably the most significant being the Hibernia Park. Dedicated in 1964, the park is now comprised of approximately 890 acres, including Chambers Lake, a man-made reservoir developed primarily for flood control purposes. The park contains a variety of recreational opportunities, including an extensive multi-use trail system primitive campgrounds, picnic areas with pavilions, playgrounds, and with the recent dedication of Chambers Lake, water-based activities such as boating.

Chambers Lake, also an important regional facility, was created by a dam on the Birch Run Creek, which drains to the West Branch of the Brandywine Creek. Approximately 40 percent of the reservoir is located within the boundaries of Hibernia Park. The 90 acre reservoir was a joint project of Chester County and the City of Coatesville Authority, in cooperation with the U.S. Department of Agriculture. The two main purposes of the reservoir are to provide flood control on the Brandywine Creek and to meet future water needs for the City of Coatesville. A secondary benefit of the project is the enhancement of recreational opportunities at Hibernia Park.

Also associated with Hibernia Park is the Hibernia-Hatfield Historic District. Listed on the National Register of Historic Places, this non-contiguous district of 266 acres consists of five separate parcels, two of which are contiguous with Hibernia Park. The District contains the Hatfield House, once the residence of a prominent local ironmaster. The house is owned and operated by Chester County.

The Coatesville Reservoir, managed by the City of Coatesville Authority, is located in southeastern West Caln Township adjacent to the Coatesville Country Club. This reservoir is the primary source of water to the City of Coatesville and to the surrounding region.

Community facilities are further discussed in Chapter 5.

### **PLANNING IMPLICATIONS**

- West Caln Township shares boundaries with seven municipalities. Although most have a similar land use philosophy to West Caln, the Route 30 by-pass has increased development pressure throughout this region. These municipalities must work cooperatively to plan for development that could occur as a result of the increased use of this corridor.
- The West Brandywine Creek serves as the boundary between West Caln and West Brandywine Townships. Planning associated with this important natural feature needs to be coordinated between these two municipalities to ensure effective protection.
- Extensive areas of prime agricultural soils are located in West Caln and surrounding municipalities including Honey Brook, Sadsbury and West Sadsbury Townships. Working cooperatively to protect this resource could reduce development pressure and conversion to residential uses.
- The proximity of West Caln Township to the City of Coatesville has reduced the need for commercial, retail and other similar services and facilities in the Township because they are easily accessed in and around Coatesville. These municipalities should recognize this relationship and strive to continue to focus development that can help revitalize the City, while simultaneously reducing sprawl development in the Township.

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## Chapter Three

### DEMOGRAPHIC CHARACTERISTICS

This chapter outlines the population and housing demographic characteristics of the Township which determine the need for land use, community facilities and transportation. The analysis of this data is primarily based on official U.S. Bureau of the Census data from 1980 and 1990. While past trends do not necessarily reflect future conditions, they serve as a basis for projecting future growth and service needs. By comparing these trends to factors described in the Regional Influences chapter, future trends emerge. The information in this chapter identifies how West Caln Township has changed over time and compares the change with that experienced by surrounding municipalities and Chester County as a whole, which leads to a better understanding of the Township's role within the region.

#### POPULATION CHARACTERISTICS

The population of West Caln Township has increased by 4,658 persons since 1950 to reach a 1990 U.S. Census count of 6,143 people. From 1980 to 1990 alone, the population increased by nearly 24 percent (23.9%). This increase can be partially attributed to trends in housing construction and improvements in the regional transportation network, and the development patterns of surrounding municipalities. **Table 3-1** compares population increases in West Caln Township and the surrounding region in actual numbers and the percentage of change for the period of 1950 through 1990.

The population increase between 1980 and 1990 in West Caln Township was higher than the overall County increase of just under 19 percent (18.9%). The County average was greatly affected by the dramatic growth experienced in the central and eastern portions of the County which resulted in a high County-wide growth rate for the decade. This growth pattern can be seen within the Township and a number of the surrounding municipalities.

While the City of Coatesville and Valley and Sadsbury Townships had lower growth rates than the county average, other nearby municipalities such as Honey Brook, West Brandywine, and West Sadsbury Townships also had higher growth rates than the county average. It is evident from these growth patterns that development is occurring in the more rural townships surrounding Coatesville where the quantity of open space is still at a premium.

#### Population Estimates

Population estimates provide an assessment of population based on calculations of current or past times. They differ from population projections which are calculations of future populations. Estimates over a 5 year period, 1991 - 1996, show a marked increase in population for West Caln Township. The population for West Caln is estimated to have increased by an additional 1,257 persons during this period. The Township for this period had an average annual growth rate of three and two tenths percent (3.2%). The County, on the other hand, had an estimated average growth rate of just under two percent (1.8%) for the same period. The Township continues to grow at a greater pace than the County as a whole. This is due, in part, to a low, rural base population that did not increase significantly in the first half of the century.

### **Population Projections**

Population projections extend past growth trends into the future to determine future Township population size. Projections are used to define demand for future land use, facility and service needs, and circulation patterns. They serve as indicators, since accurately projecting the future population of a municipality is extremely difficult. The construction of one large development in the Township, or changes in commercial and industrial activity in the Philadelphia or Wilmington urban areas, could have an impact on West Caln Township.

Two projection techniques have been used to provide a range of possible population outcomes in West Caln Township. Due to a number of variables which can affect population projections, a single projection cannot be viewed as an entirely accurate source on which to base planning goals and policies. For this reason a range of policies are provided with projections calculated to the year 2020. **Table 3-2** summarizes the results of these projections.

**Arithmetic Technique (Low Range Projection)** establishes constant numerical change within the population and projects the change into the future. It is based on an average gain of 1165 persons each decade, as experienced between 1950 and 1990. An increase of 2,330 persons over the next 20 years is projected. This technique results in a conservative projection.

**Geometric Technique (High Range Projection)** determines future population based on a calculation of an average rate of change which occurs in each decade. The rate of change between 1950 and 1990 was selected as the most realistic representation of population change within the Township. The average rate of increase per decade was calculated at 41.8 percent. An increase of 5,134 persons over the next 20 years is projected using this method. This technique provides for a higher rate of growth.

A third population technique (Building Permit technique) was ruled out because of its unreliable outcome. Based on applying the average household size from the 1990 Census to the number of building permits issued for new homes between 1980 and 1990, this technique was biased due to the large number of homes constructed in the Township during the early 1980's. The projections calculated for this future population were at the extreme high end.

The above high and low range population projections have been compared to those compiled by the Chester County Planning Commission. The projections assembled by the Commission took into consideration a number of variables such as adjusted 1990 Census data and regional transportation information not often available to municipalities. The procedure for determining these projections was a two-step process. The first step involved the calculation of unadjusted figures from the 1990 Census. The second step in the process adjusted the projections based on variables such as past population trends, existing land use, known development proposals, transportation access and any other factors that could affect population. An increase of 1,550 persons over the next 22 years is projected using this method.

TABLE 3-1

**NUMERIC AND PERCENT POPULATION CHANGE (1950-1990)  
Population Changes in Surrounding Municipalities**

MUNICIPALITY	1950	1950-60 %Change	1960	1960-70 %Change	1970	1970-80 %Change	1980	1980-90 %Change	1990
<b>West Caln</b>	1,485	4.1%	2,140	47.3%	3,152	57.2%	4,958	23.9%	6,143
Coatesville	13,826	-0.6%	12,971	-5.0%	12,331	-13.3%	10,698	3.2%	11,038
Honey Brook	1,261	25.0%	1,584	82.0%	2,883	43.2%	4,128	32.0%	5,449
Sadsbury	1,501	38.0%	2,066	2.0%	2,103	14.0%	2,398	4.7%	2,510
Valley	3,148	-1.5%	3,101	22.3%	3,791	-5.1%	3,598	11.4%	4,007
W. Brandywine	1,122	49.3%	1,675	62.0%	2,713	50.0%	4,068	47.1%	5,984
W. Sadsbury	802	37.4%	1,102	8.0%	1,189	45.3%	1,728	25.0%	2,160
<b>Chester Co.</b>	159,141	32.3%	210,608	32.1%	278,311	13.8%	316,660	18.9%	376,396

Source: U.S. Bureau of the Census, (1950-1990)

TABLE 3-2

**POPULATION PROJECTIONS (2000-2020)  
Results of Three Population Projection Methods**

Projection Technique	1990	2000	2010	2020
<b>Arithmetic Technique (Low Range)</b>	6,143	7,308	8,473	9,638
<b>Geometric Technique (High Range)</b>	6,143	8,046	9,949	11,852
<b>Chester County Projections</b>	6,143	7,420	8,210	8,970

Source: Chester County Planning Commission (1997)  
U.S. Bureau of the Census (1990)

**Analysis of Population by Age**

The population by various age groups is important for predicting future demands for various types of facilities, services, and housing. Currently, the largest age group in the Township is the 25 to 44 year old age bracket, an increase of 37.3 percent between 1980 and 1990. This age group is at the primary stage for establishing families and buying homes. From this group, a direct correlation to the second largest age group, the 5 to 17 year old bracket, can be made. Potential impacts of these factors will be a greater demand for housing, schools and recreational facilities in the Township.

Also during the period between 1980 and 1990, there was a dramatic increase in the pre-school age group (0 to 5 years), a 34 percent change for the period. An increase in pre-school age children is typical of what occurred in the County as a whole during the same period, where there was a 35.5 percent increase in the five and under age group. Any increase will have future implications and will create a greater demand for day care facilities, schools and recreational facilities.

In the Township, the number of persons of retirement age (65+) increased from 328 to 461, or 40.5 percent, between 1980 and 1990. This increase can be attributed to an aging population within the Township. An increase in persons within older age groups will have future effects on services and facilities for the elderly, such as transportation and housing.

#### **Analysis of Average Household Size/Number of Households**

Trends in household size can indicate potential demand for housing type and size, and for community facilities and services such as medical facilities. The average household size in the Township has decreased over the past decade from 3.16 persons per household in 1980 to 3.03 in 1990. In comparison, the County-wide 1990 household size was 2.73. This may be due to the fact that the County average includes multi-family housing and smaller homes found in urban areas that are typically not found in rural townships.

Decreasing household sizes reflect both regional and national trends. Factors contributing to smaller household sizes include couples having fewer children, young adults postponing marriage, more single parent-households, and increasing numbers of un-related households ("nuclear family" consisting of 1/3 of all households), and older people living independently. The implications of smaller household sizes and diversified household composition include a greater demand for housing, fire and police protection, and solid waste and sewage disposal for the same number of people residing in a greater number of units. As is the case in Chester County, household size has continued to decrease, but demand for larger homes has not decreased because couples having no children often desire larger units.

### **ECONOMIC PROFILE**

This section describes characteristics of West Caln's economy and labor force. Information addressed includes types of occupations, income, unemployment and means of travel to work. All data is based on the 1990 U.S. Census and the 1987 U.S. Economic Census. The Economic Census is conducted at five year intervals and includes information on retail, service, manufacturing and wholesale establishments.

From this information, several observations can be made regarding the characteristics of the local economy. Although there are several commercial uses located within the Township, the City of Coatesville is serving primarily as the commercial and industrial center for the region. However, with the regional transportation improvements and employment shifts, many residents will commute considerable distances for shopping and employment such as Delaware, Lancaster County, and Exton.

Agriculture is an important sector of the West Caln economy and also contributes to the character of the community. If significant loss in agriculture were to occur, it would have major implications for the economic and cultural fabric of West Caln Township. Maintaining the current diversified base of agriculture, commercial and service industries will be important to the economic stability of the Township.

#### **Analysis of Labor Force by Occupation and Industry**

An analysis of the types of industries in which residents are employed provides an indication of their importance to the local economy. **Table 3-3** indicates the type of industry in which residents were employed in 1980 and 1990. The



industries employing the highest percentage of Township residents were, in descending order, manufacturing, retail trade, construction, agriculture and finance and real estate. Agriculture and mining employed only 3.8 percent of Chester County's labor force, as compared to 6.9 percent of West Caln Township's labor force in 1990.

TABLE 3-3

**LABOR FORCE BY INDUSTRY**  
**Number and Percent of Residents Employed in Specific Industries**

<b>West Caln Township</b>	<b>1980</b>	<b>1980</b>	<b>1990</b>	<b>1990</b>	<b>1980-1990</b>
<b>Industry</b>	<b>Numeric</b>	<b>Percent</b>	<b>Numeric</b>	<b>Percent</b>	<b>Percent Change</b>
Manufacturing	894	39.5%	868	19.7%	-3%
Retail Trade	231	10.2%	316	9.8%	36%
Construction	156	6.9%	293	9.0%	87%
Agriculture, Forestry, Fisheries	68	3.0%	225	6.9%	230%
Finance, Insurance, Real Estate	123	5.4%	218	6.7%	77%
Personal & Recreation Services	77	3.4%	141	4.4%	83%
Business & Repair Services	74	3.3%	139	4.3%	87%
Transportation	140	6.2%	137	4.2%	-2%
Professional & Related Services	337	14.9%	134	4.1%	-60%
Wholesale Trade	85	3.8%	133	4.1%	56%
Communications/Public Utilities	37	1.6%	102	3.1%	175%
Public Administration	42	1.9%	43	1.3%	2%
<b>Total Employment</b>	<b>2,264</b>	<b>100%</b>	<b>3,240</b>	<b>100%</b>	<b>43%</b>

Source: U.S. Census, 1990

Other areas where the labor force of the Township differs from the County are in the areas of construction and transportation industries. The Township has a greater portion of its population employed by these industries than does the County. This may be a reflection of the rural nature of the Township and the concentration of its work force in the labor intensive sector of the economy.

**Description and Analysis of Employment Shifts**

A major trend that has emerged in Chester County and the Township between 1980 and 1990 is the growth of the retail trade and other service sectors in the local economy. This trend can also be found nationwide. A consequence from the growth of this sector is that there continues to be a shift from manufacturing related industries to service based industries. The long term effects will be the increased distance residents commute to jobs and the impact on the local transportation network within the Township.

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### **Analysis of Employment Location and Means of Travel to Work**

Employment locations and the means of travel to work indicate the movement of people from place to place within and outside a community. Examining employment location and means of travel to work provides insight into an area's standing as an employment center or as a residential community. Shifts in employment locations or the means of travel to work can indicate changes in an area's role in the local or regional economy.

The labor force in West Caln Township can be divided into two categories: the resident and the local labor forces. The resident labor force consists of individuals who live in the Township, but do not necessarily work there. The local labor force includes those persons who work in the Township, but who may reside elsewhere.

The total resident labor force in 1980 was 2,209 as compared to 3,389 in 1990. Of these residents, 2,086 and 2,959 commuted to destinations, in 1980 and 1990 respectively, outside the Township for employment. In these numbers, 494 (22%) and 500 (15%) commuted to destinations outside the County. This was less than half the County average of 42 percent in 1980 and 31 percent for 1990 of residents who worked outside Chester County. Outside the County, the areas of Delaware, Lancaster and Montgomery Counties were the points of destination for most West Caln Township commuters in 1990. For the County as a whole in 1990, Philadelphia, Delaware, and Montgomery Counties were the more common destinations of commuters. Within the County, the most common destinations for West Caln Township commuters were Coatesville, Downingtown, West Whiteland, East Whiteland and West Chester. These destinations accounted for 37 percent of all work destinations for the Township. Information was not available for 1980 showing destinations for West Caln residents within the County. This indicates that most residents commuting outside the Township remain in Chester County and work in relatively close proximity to West Caln.

The 1990 U.S. Census indicates that there were 293 commuter vehicle trips that ended in West Caln Township. Of the commuters whose point of destination was West Caln Township, most were residents of the Township, (25%). The City of Coatesville provided the second largest number of commuters (22%) to the Township. West Sadsbury and Valley Townships also provided a sizable number of commuters, at 8 percent each. This indicates that one quarter of the residents living in West Caln also work in the Township. Coatesville is also an important source of workers for West Caln businesses.

Mean Travel Time, the average amount of time it takes a commuter to reach his or her work destination, is also an important factor in determining how far a resident of the Township is willing to commute for employment. According to U.S. Census data for 1980 and 1990, the average travel time to work for most Township commuters was 25.2 and 25.6 minutes respectively. This travel time was comparable to the County average of 22.3 and 23.9 minutes respectively. The implications for the Township are that a majority of residents commute to work locations outside the Township and that time is not as important a factor as job opportunity. Also, with the completion of the Route 30 by-pass, some commuter times will be decreased, thus continuing the transformation of the Township from an agricultural community into a "bedroom community".

### **Trends in Median Household Income**

Income and unemployment trends are indicators of how well a community is doing economically in relation to the region and the County as a whole. Per capita income is useful for standard of living comparisons, while unemployment rates indicate the strength of the economy.

Income on a per capita basis is calculated by selecting the aggregate income of an area and dividing it by the number of inhabitants. Of the six adjacent municipalities examined, West Brandywine Township experienced the greatest increase in per capita income between 1980 and 1990 at 110 percent, followed by Sadsbury Township with a 109 percent increase for the same period. West Caln Township had the lowest per capita increase during this period. Only Coatesville City and Valley Township were lower. The Township's per capita income was also below the County and State figures for this corresponding period.

The lower per capita income in the Township may be attributed to the higher percentage of older persons residing in the Township as compared to some of the surrounding municipalities. For example, in 1990, 7.5 percent of the Township's population was 65 years old while only 6.5 percent of West Brandywine Township population was in this age group. Another contributing factor to income levels is the rural nature of the Township and the higher percentage of residents involved in agriculture.

Unemployment rates do not necessarily represent obstacles to a local economy, but can be healthy to a community in signifying a market demand for certain types of occupations. Unemployment figures from the 1990 Census and Pennsylvania Department of Labor and Industry from 1992 to 1996 indicate that West Caln Township had an 1990 unemployment rate of 4.3 percent, higher than that of the County (3.2%), but lower than the State (6.0%). The Township is slightly behind many areas of the County in employment, but is in good shape compared to many areas of the State. According to Department of Labor and Industry data, the unemployment rate decreased at the County level 1.8 percent between 1992 and 1996. Until the 2000 Census figures are available, it cannot be determined if West Caln Township also followed this trend. However, taking into consideration the county-wide decrease in unemployment rates, it is likely the Township also experienced to some extent a decrease in unemployment during this period.

#### **Composition of Households by Income Category**

The composition of households by income category is important in determining by what percentage incomes have increased within the Township. This information can also be compared to surrounding municipalities and the County for the same time period. West Caln Township had a median income level of \$41,859 according to the 1990 Census. This is an increase of 54 percent over the income level for 1980. As can be seen from **Table 3-4**, the Township had a greater overall increase in median income than at the county level (49%) or \$45,642 for the same period. Compared with the surrounding municipalities for 1990, West Caln Township had one of the highest income levels in the region.

**TABLE 3-4**

#### **COMPOSITION OF HOUSEHOLD INCOME Household Incomes of Surrounding Municipalities**

<b>Municipality</b>	<b>Median Household Income 1980</b>	<b>Median Household Income 1990</b>	<b>% Increase 1980-1990</b>
<b>West Caln</b>	<b>\$22,517</b>	<b>\$41,859</b>	<b>85.8%</b>
Coatesville	\$14,184	\$24,887	75.4%
Honey Brook	\$18,285	\$32,029	75.1%
Sadsbury	\$19,414	\$37,321	92.2%
Valley	\$19,375	\$34,538	78.7%
W. Brandywine	\$23,233	\$47,889	106.1%
W. Sadsbury	\$20,922	\$38,750	85.2%
Chester County	\$22,209	\$45,642	105.5%

Source: U.S. Bureau of the Census (1980 and 1990)

### **General Assessment of Local Economy**

A general assessment of the local economy in West Caln Township concludes that the economy is healthy and that the following factors exist:

- The Township remains primarily rural in nature and agriculture is still an important sector of the local economy.
- Coatesville has served as the primary commercial and industrial center for the region, but with the Exton Bypass residents will commute greater distances for shopping and employment.
- Employment for Township residents is dominated by the manufacturing sector.
- A shift in employment from manufacturing employment to retail and other service industry jobs is occurring.
- A large number of residents already commute to jobs outside the Township and with the Route 30 By-Pass more new residents will be attracted to the Township.
- Per capita income is low in the Township due to the number of aging residents.
- The median income, although, has increased by 54 percent from 1980 to 1990 because of residents moving into the Township with higher incomes.

### **HOUSING CHARACTERISTICS AND TRENDS**

Trends in housing help to determine whether a municipality is currently providing for a suitable mix of housing types and what housing obligations will occur in the future. Ideally, a municipality should support a number of housing types at differing price ranges to accommodate the needs of its residents. The housing analysis also considers various housing attributes which may impact affordability, quality, and the condition of housing in the community.

#### **Number of Housing Units and Composition Analysis**

Trends in housing are important in determining the types of units built and in determining if the Township is providing the opportunity for a variety of housing types. Between 1980 and 1990, the total number of housing units increased by 453 units from 1,622 units to 2,075 units, or 28 percent in the Township. This compares to a 27 percent in Chester County over the same period. West Brandywine Township had an increase of 49 percent over the same period. The 1980s and 1990s were and are a period of high growth in the County, particularly in the Townships, and this growth is reflected in the rapid increase in housing units experienced in West Brandywine Township during this period.

The Township offers a wide range of housing types. Within the Township, 77 percent of housing consists of single-family detached, with the balance primarily a mixture of single-family attached (duplexes and townhouses), multi-family with 2 to 4 units, and mobile homes. The biggest increases in housing type between 1980 and 1990 in the Township were mobile homes (56%). This type of housing also accounted for 15 percent of all the housing stock found in the Township. The high percentage of mobile homes reflects both a demand for single-family detached and affordable housing.

### **Housing Unit Projections**

Household size and population projections can be used to project the number of additional housing units needed to accommodate possible future residents of the Township. Dividing the projected population of the Township by average household size reflected in the 1990 Census yields a future projected need of between 770 and 3,103 additional housing units to serve the projected population to 2020. There is sufficient developable land within the Township to address the projected increase in population and housing. Nonetheless, the projected density of new housing units is based on the desires of the Township and individual landowners, many of whom have indicated a commitment to agriculture and the rural setting of the Township. A housing unit projection can help determine how a projected population increase (and the number of new housing units required) will effect future Township land use planning in light of the current zoning provisions.

### **Analysis of Housing Locations and Vacancy Rates**

Primary locations where housing development has occurred in the past are the Villages of Wagontown, Martin's Corner, Compass and Phillipsville. It is in these areas that the largest number of single-family detached housing and historic homes in a historic setting exist. It is also in these areas where most of the Township's multi-family housing stock exists. Mobile homes, on the other hand, though found in all areas, tend to be concentrated in the southeastern section of the Township in existing mobile home parks.

The vacancy rate is defined as the percentage of housing units that are vacant and available for sale or rent during a given year. Vacancy rates can determine the desirability of persons to live in a certain location. It also demonstrates the stability of the housing market and the economy in general. The vacancy rate for West Caln Township was 2.5 percent for 1990. This was a decrease in the 3.5 percent for 1980. In comparison to the County vacant rates of 4.5 percent and 4.0 percent for the same years. A low vacancy rate can be characteristic of a stable neighborhood or an area in high demand. A high vacancy rate can indicate overbuilding or out-migration. The optimum vacancy rate for communities established by the Delaware Regional Planning Commission is (4%). From this data, the Township can be considered to possess a stable housing market which accommodates the existing demand.

### **Analysis of Home Ownership**

Trends in home ownership rates often reflect the affordability of housing in an area. The financial ability of potential homeowners and renters to purchase homes or rent in a community and the willingness of current homeowners to sell their homes or renters to move to new locations, impact affordability. In 1990, 1,815 Township residents or 89.7 percent owned their own homes. This represents an increase of 31.7 percent in ownership over 1980 as most new residents to the Township purchased homes. This is comparable to the percentage increase in homeownership rate in the County of 34.1 percent for the same period. Renter rates in the Township were 10.3 percent in 1990. This is an increase of only 11.2 percent over the rates for 1980. The County renter rate was 10.7 percent for the same period. The increase in the homeownership rate in the Township may be reflective of the types of housing chosen by homebuyers.

### **Analysis of Housing Age and Physical Characteristics**

Of the existing housing stock, 64 percent of all housing in the Township was constructed after 1970. In comparison, only 46 percent of the County's housing was constructed after 1970. This would be expected since the Township experienced its highest growth rate from 1970 to 1979. Housing age can also be an indicator of its condition. When not well maintained, older housing may be subject to deterioration. Due to the recent age of most housing in the Township, the housing stock should either be in excellent or very good condition.

Another indicator of housing conditions is the number of persons per room in each housing unit. Generally, more than one person per room is considered overcrowded. A higher ratio of persons per room can indicate substandard living conditions. In the Township, the number of units with more than one person per room actually decreased 37 percent between 1980 and 1990. This indicates that overcrowding is not a serious problem in the Township. In addition, this is an improvement in housing conditions from 1980 when 2.7 percent of the housing units had more than one person per room, to only 1.7 percent in 1990.

### **Median Housing Value**

Housing costs rose greatly throughout the region and County during the period of 1980 through 1990. West Caln Township was no exception during this period. In 1990, housing in the Township was the third highest priced in comparison with other municipalities in the region. However, prices in the Township did not exceed those prices in the other municipalities by any great margin. The median housing value for the Township was \$122,800 in 1990. This is less than the median value for the County as a whole at \$155,900. The lower housing prices than the County average will continue to attract new homebuyers to the Township.

### **Housing Affordability Analysis**

In 1994, the Chester County Planning Commission completed a housing affordability study throughout the County (1994 Housing Costs Profile). This report was drafted in response to dramatic increases in housing costs following the housing boom of the 1980's. Because housing prices at the time were increasing at a greater pace than incomes, a disparity was created between what was affordable and the cost of the existing housing stock.

The report established a Housing Affordability Index for each municipality in the County. This Index assesses the relative affordability of housing within a specific municipality by contrasting the monthly mortgage cost of a median priced home sold with the median income that is available for housing. Housing is considered affordable if monthly mortgage payments are 28 percent or less of a family's monthly income.

According to the housing affordability index, a rank of less than 100 indicates that a median priced home in the municipality is not affordable for a family with the median income. The affordability index was calculated to be 105.5 for West Caln Township in 1994. This indicates that a median priced home is affordable to a family with the median income. The situation is still favorable to West Caln resident homebuyers who wish to stay in the Township. However, this relative affordability will also attract many new residents to the region in search of affordable housing.

### **Fair Share Housing Analysis**

An analysis of housing characteristics and trends must also include a fair share housing analysis. This analysis determines whether a municipality is providing for its "fair share" of multi-family dwellings and to what degree existing regulations support multi-family development. The basic premise behind the fair share principle is that local governments are required to plan for and prepare land use regulations to meet the legitimate needs of all categories of people who may desire to live in its boundaries.

The analysis of fair share uses the test established by the Commonwealth Court case of Surrick v. Upper Providence Township 476 Pa. 182, 382 A.2d 105 (1977). This test consists of a three-tier analysis based on the following questions: 1) Is the municipality a logical place for growth and development? 2) Is the municipality a developed or developing community? and 3) What is the potential for development of multi-family units and is the amount of land set aside for multi-family development disproportionately small in relation to population growth pressures?

Based on projected Township population, housing affordability and the proximity of Route 30, West Caln Township will continue to experience growth and development. Also, with land appropriately set aside for potential growth and a sizable amount of vacant land, West Caln could still be considered a developing community. As development continues to occur, the potential for higher density development and a variety of housing types becomes even greater. West Caln should evaluate its current regulations to ensure that it has provided for a variety of housing types throughout the Township.

### **PLANNING IMPLICATIONS**

- Accommodating the projected population through current large lot zoning will accelerate the rate of land consumption. There is a need to reevaluate the current development pattern and focus growth in order to conserve open space and prime agricultural soils.
- There is a need to provide for future residents while preserving the character of the Township by focusing development in appropriate areas.
- The completion of the Exton by-pass will influence the timing of both population and housing growth, resulting in an increased demand for new construction in the Township. The Township needs to encourage new construction that meets municipal objectives of focusing growth in appropriate locations.
- Changes in the regional transportation network may result in commuters willing to travel longer distances in order to live in West Caln Township and this could also increase demand for new housing.
- Infrastructure and service planning should support Township objectives while responding to residents' needs.
- The Future Land Use plan must be responsive to the "fair share" housing objective and provide for a variety of housing types and opportunities.



## Chapter Four

# NATURAL AND HISTORIC RESOURCES INVENTORY

West Caln recognizes the importance of both the quantity and quality of the natural and historic resources in the Township. Understanding the linkage between these resources and the local quality of life is necessary to guide development appropriately. Viewing the Township as a landscape created by the interaction of many different natural forces facilitates land use decisions that take into consideration environmental constraints as well as opportunities.

This chapter describes the natural and historic resources of the Township and analyzes how these resources are important to the quality of life and long range planning in the community. The maps included in the chapter show the location of important resources and illustrate their proximity to one another. This chapter provides the basis for the recommendations found in Chapter 9.

### LAND RESOURCES

#### Geology and Topography

Land regions are classified by common landscape characteristics while geologic formations are described in terms of physiographic provinces. Chester County lies within the Piedmont Province. This province consists of three sections, the Piedmont Upland, the Triassic Lowland and the Conestoga Valley, each of which has distinct bedrock characteristics. The Piedmont Upland comprises the majority or about 85 percent of the County, and all of West Caln Township. The underlying bedrock in the Piedmont Upland is predominately schist, gneiss, quartzite and gabbro. The Triassic Lowland comprises most of the remaining area of the County with the underlying bedrock of shale and sandstone. A very small section of the Conestoga Valley is located in West Caln Township in the Compass vicinity and extending toward Brandywine Manor in West Brandywine Township. This area is underlain by schist and quartzite.

The geology of a region is a primary determinant of the types of land uses that can take place and the degree of development that can occur. The geology determines the types of soils present, the groundwater available, the stability of bedrock, and often, the types of naturally occurring vegetation. The topography is mostly determined by geology as well. The origin, age, and rock types which make up the geology also determine the hardness of the underlying rock and their resistance to erosion. The erodibility and weathering of the underlying rock determines the slope, and the extent to which hills and valleys are formed. The regional geology is directly related to water resources. The geology and groundwater are shown on **Map 4-1**.

The topography of West Caln Township is comprised of gently rolling uplands with low hills, and low to moderate slopes, typical characteristics of the Piedmont Province. The highest ridges are found in the region of the Barren Hills (central and north-central West Caln) and the State Hills (south and west West Caln). The harder, more erosion resistant quartzite rock formed the ridges of these two ranges. The Chester Valley, a primary geological feature of Chester County, traverses Chester County in an east-west direction just south of West Caln's southern boundary. This Valley ranges in width from one to two miles, is underlain by limestone, and is responsible for the formation of some of the best agricultural soils in the country. Although the Chester Valley does not traverse West Caln, its proximity directly affects the Township and should be recognized in planning for land use.

Several areas of steep slopes are found in West Caln. Most are associated with the ridges of the State Hills and Barren Hills. The corridor of the West Branch of the Brandywine Creek also contains some steep slopes. Steep slopes are a particular environmental concern because inappropriate development of these areas can result in uncontrolled stormwater runoff and severe erosion. The slopes most susceptible to erosion are those 15 percent and over.

### **Soils and Agricultural Land**

The Township's geology has resulted in two predominate soil types, the Edgemont Association and the Neshaminy-Glenelg Association. A soil association is a pattern of soils that contain a limited number of major and minor soil kinds. A soil association does not indicate uniformity. In fact the soils in an association can vary greatly from one another; however, they are often similar in pattern. The Chester and Delaware County Soil Survey (1963) is the main source of information on local soils. It describes the Edgemont Association as comprised of soils which are generally moderately deep, channery soils on grayish quartzite and phyllite. These soils are found on ridges and slopes in the northwest quadrant of the Township extending from Compass, northeast to Brandywine Manor in West Brandywine Township. Agricultural uses are found in some parts of this region, but many areas, particularly those that are steeply sloped, remain wooded. **Map 4-2** shows the location of the land resources.

Most of the remaining soils are of the Neshaminy-Glenelg Association. These soils tend to be moderately deep to deep, silty and well drained. These soils are usually gently to moderately sloping with only limited areas of steep, stony soils, and are mainly wooded. These soils are found throughout the eastern parts of the Township and throughout the valley of the West Branch of the Brandywine Creek. These soils are also appropriate for agricultural activity.

Because both the Edgemont and the Neshaminy-Glenelg soil associations are moderately deep and well drained, they are generally suitable for on-lot sewage disposal systems. Since most residents of the Township are dependent on individual on-lot disposal systems, and will likely continue, this factor is an important planning consideration. The soils within the Neshaminy-Glenelg Association are somewhat more varied in their suitability for this use, with different limitations based on the specific characteristics of individual soils. Several soils within this association are not as well-drained as others, limiting their use for septic systems.

Soils are classified by the U.S. Department of Agriculture in terms of their suitability for various agricultural purposes. This information is intended to assist the agricultural community in making decisions on the types of crops that can be successfully raised in a given area. The soils are rated on several characteristics and then classified from I to VIII, with each soil class having a different set of values indicating its level of appropriateness for certain uses. Those that have the fewest limitations and the greatest range of uses are Class I soils, while those with the greatest number of natural limitations and the fewest uses are labeled Class VIII soils. The soils that are dominant throughout West Caln Township are primarily Class I, II or III, with most of the Class I and II soils extending throughout the central regions of the Township.

# Map 4-1

## Geology and Groundwater

# of wells to produce 1 million gallons per day	Geologic Formations
5-20	<b>CZah</b> Antietam and Harpers Formations, undivided
15-40	<b>Zch</b> Chickies Quartzite
5-20	<b>Ck</b> Kinzers Limestone
1-5	<b>Cl</b> Ledger Dolomite
5-20	<b>Cv</b> Vintage Dolomite
5-20	<b>Yhma</b> banded mafic gneiss, amphibolite facies
5-20	<b>Yhfa</b> felsic gneiss, amphibolite facies
5-20	<b>Ymfa</b> felsic to mafic gneiss
5-15	<b>Yhga</b> graphitic felsic gneiss, amphibolite facies
5-20	<b>mgb</b> metagabbro
15-40	<b>pg</b> pegmatite
15-40	<b>um</b> ultramafite
5-20	<b>Yhia</b> felsic and intermediate gneiss, amphibolite facies

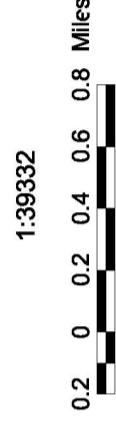
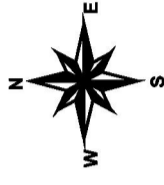
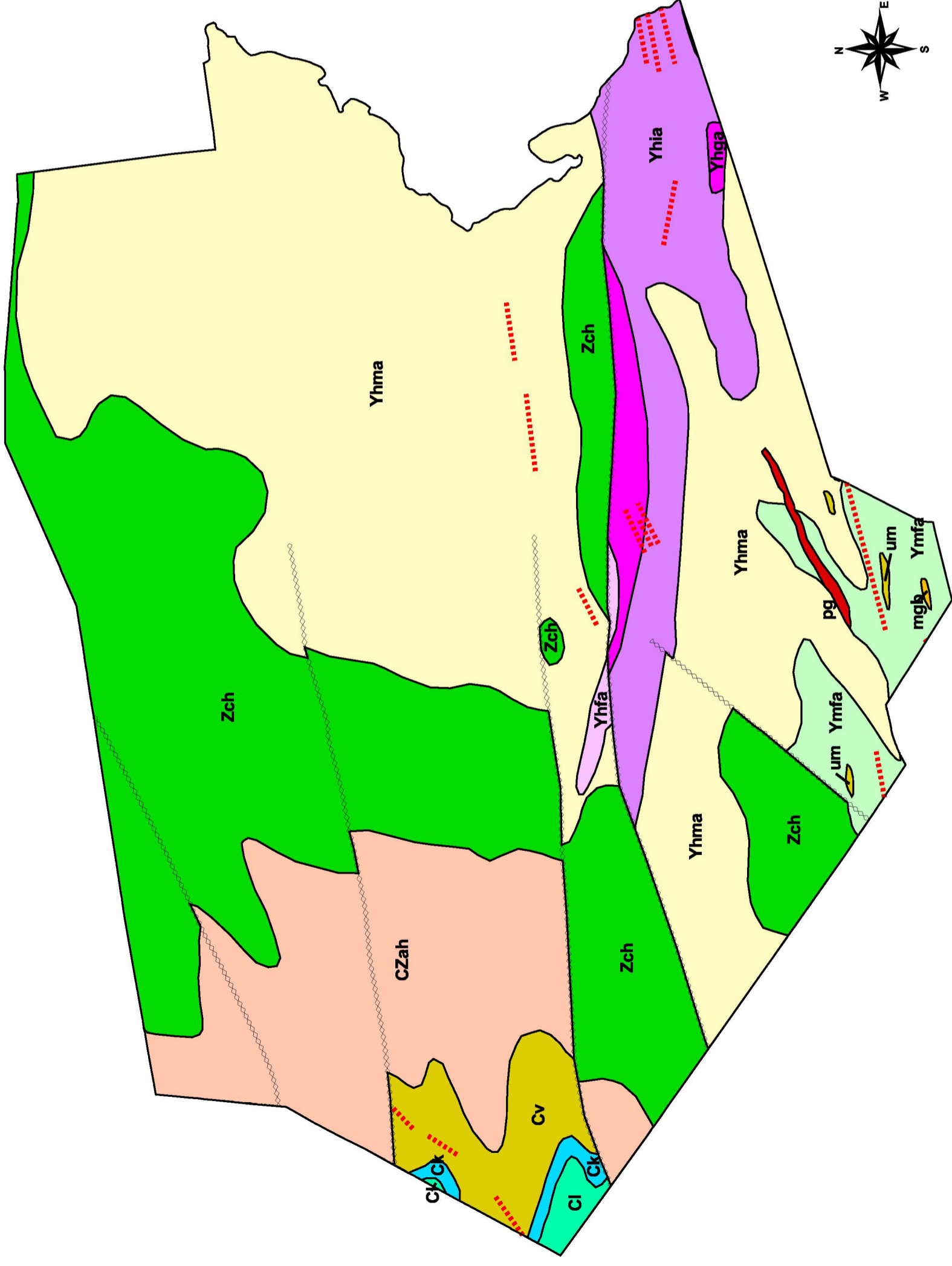
 Faults  
 Dikes

**Data Source:**  
 Digital bedrock geology of Chester County, Pennsylvania. U.S. Geological Survey, 1996.

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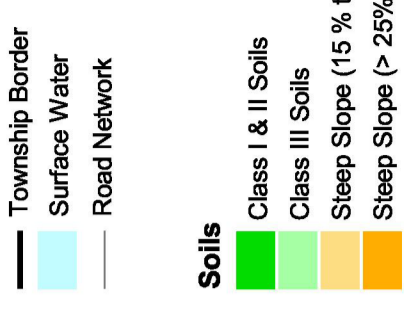
**WEST CALN TOWNSHIP**  
 Chester County, Pennsylvania

Comprehensive Plan



# Map 4-2

## Land Resources

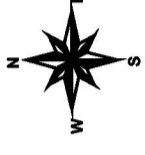
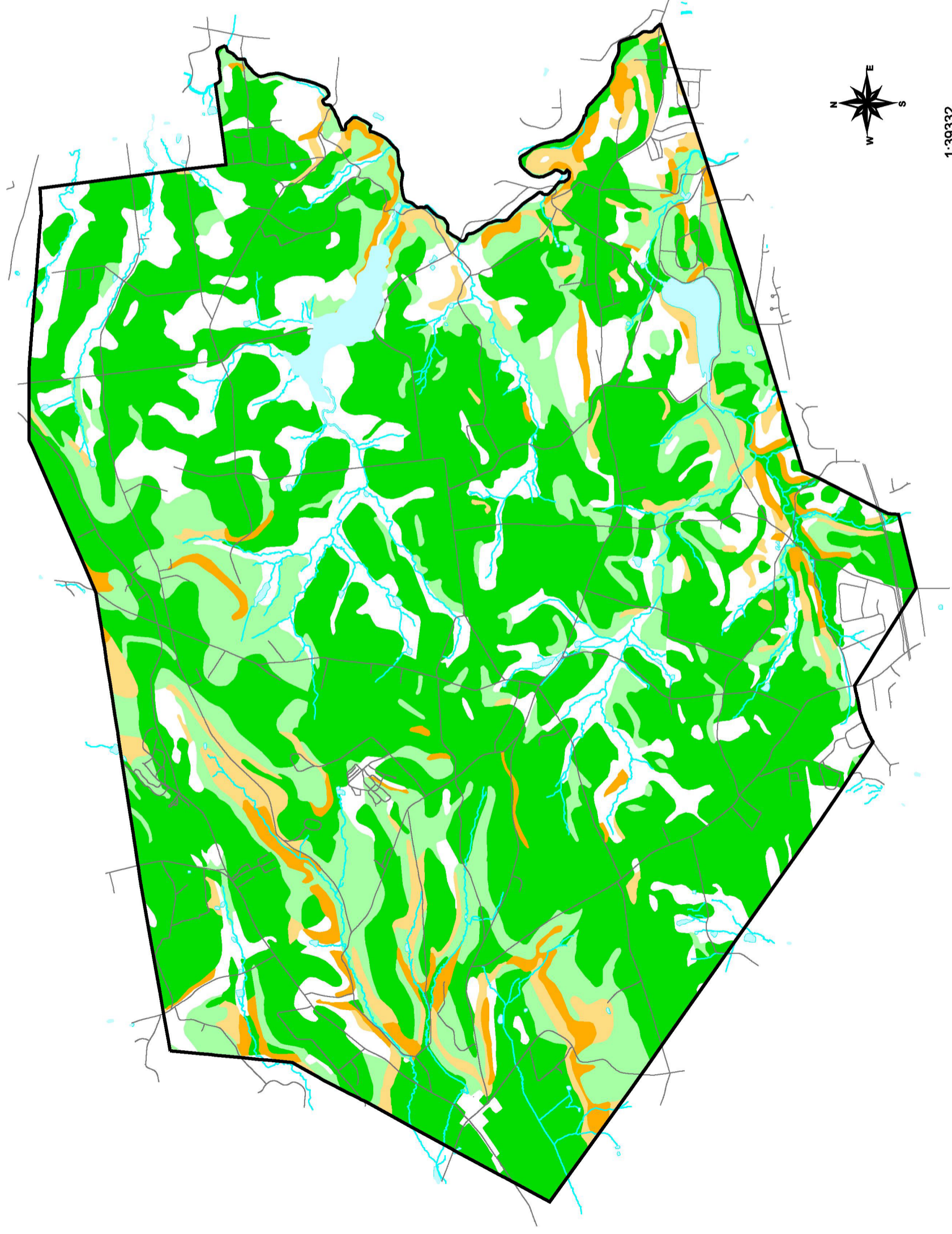


Data Source:  
Soil Survey Geographic data base for Chester County, U.S.  
Department of Agriculture, Natural Resources Conservation  
Service, 1997.

Material used in the preparation of this map has been interpreted by Chester County Planning  
Commission staff from preliminary data sources.  
The material has not been processed for quality control and is only used for draft mapping purposes.  
The planimetric and cadastral data on this map cannot be used for any other purpose without the  
express approval of the County of Chester.

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Chester County, Pennsylvania

Comprehensive Plan



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0.2 0 0.2 0.4 0.6 0.8 Miles

## **WATER RESOURCES**

Water resources consist of surface water such as rivers and streams, and subsurface water or groundwater, and are geographically defined by watershed. The drainage network within the watershed is the transport system for both the surface and subsurface water. This network comprises the main drainage basin as well as sub-basins that drain into the main basin. Maintaining the quantity and quality of this resource is a primary goal of the Township. Water resources are indicated on **Map 4-3**.

### **Surface Water and Drainage**

West Caln is somewhat unusual because it lies within two major drainage basins, the Delaware River Basin and the Susquehanna River Basin. The division between these two basins is the ridgeline formed by the combined Barren Hills and the State Hills, which traverses West Caln Township in the west-central sections. Approximately two-thirds of the Township drains south-easterly to the West Branch of the Brandywine Creek, which ultimately drains to the Delaware River. The remaining third of the Township drains westerly to the Pequea Creek in Lancaster County, and then on to the Susquehanna River.

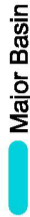

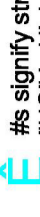


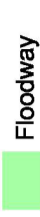




The Geology, Hydrology and Ground-Water Quality of Chester County, Pennsylvania (1994), a publication prepared by the Chester County Water Resources Authority in cooperation with the U.S. Geological Survey, describes the surface water in West Caln Township as consisting of the Rock Run Creek and its tributaries, the Birch Run Creek and its tributaries, the West Branch of the Brandywine Creek and its tributaries, and the Indian Spring Run Creek and its tributaries. A tributary of the Buck Run also reportedly runs through this region. There are two reservoirs located in the Township. The Coatesville Reservoir (also known as the Rock Run Reservoir) is approximately 63 acres in size with a storage capacity of roughly 332,000,000 gallons. It was formed in 1917 through the construction of a dam on the Rock Run Creek. The newly formed Chambers Lake is approximately 90 acres in size. It was formed by a dam on the Birch Run Creek. The Coatesville Reservoir is a primary water source for the City of Coatesville, with Chambers Lake serving as a secondary or backup source.

### **Floodplains**

Floodplains are the areas adjacent to creeks and streams that are susceptible to flooding during periods of heavy rains. The Federal Emergency Management Administration (FEMA) has established national standards for measuring floodways in order to facilitate the development of flood control regulations and encourage municipalities to regulate development in those areas highly susceptible to flooding. The adopted standard is the 100 year flood which equates to a 1 percent chance of a flood to a particular level in any given year. Floodplain maps prepared by FEMA are used to administer the national flood insurance program and are intended to provide guidance to local officials in identifying the locations of the 100 year floodplain in their municipalities. In West Caln Township, floodplains are associated with all the surface waterways listed previously. The construction of Chambers Lake, also known as the Hibernia Reservoir, was undertaken as a flood control project on the Birch Run. Although it is primarily intended for flood control, it will serve as a future regional water source and provide recreational opportunities as well.

# Map 4-3

## Water Resources

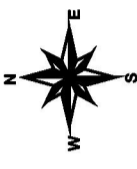
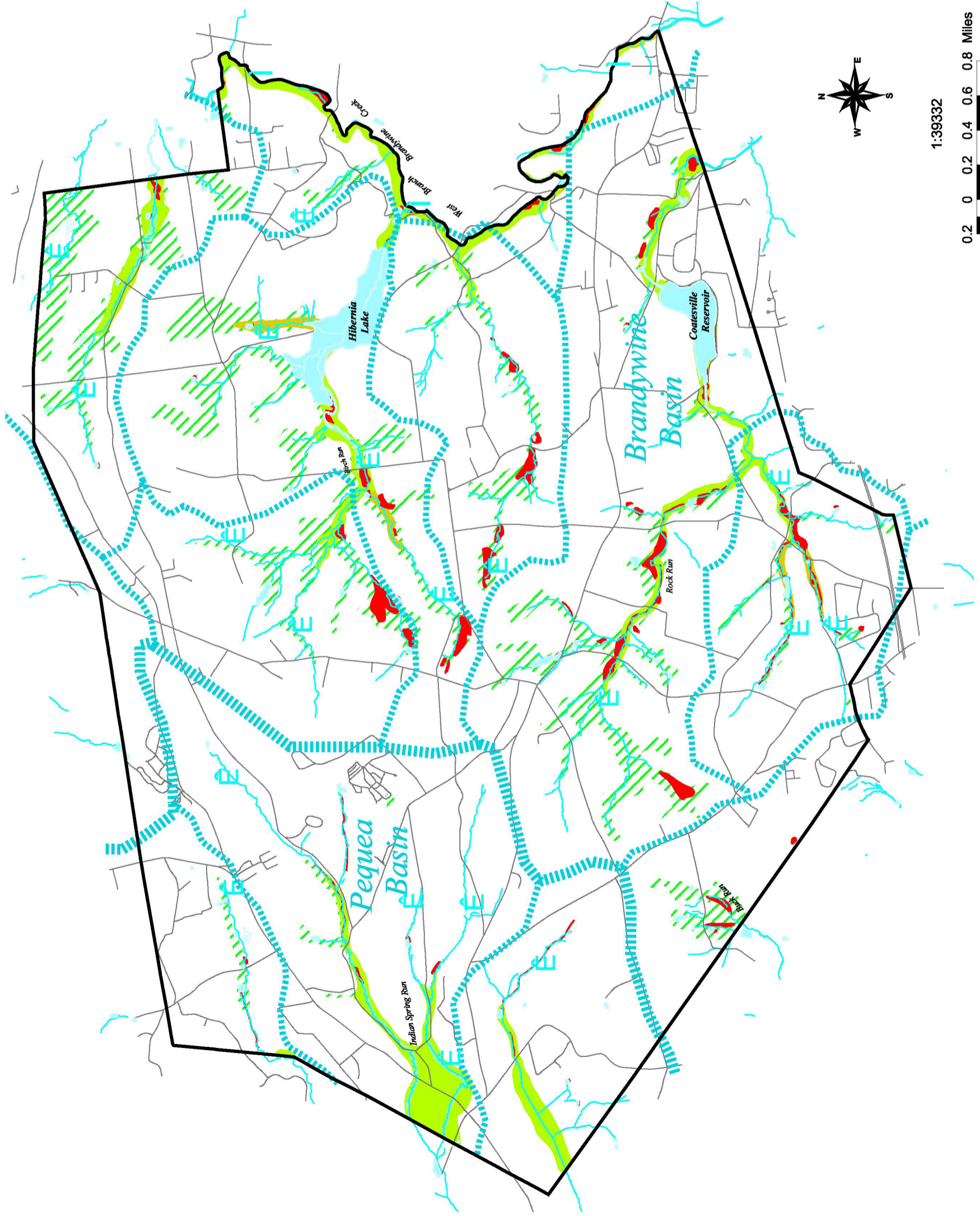
- Drainage Basin Classifications**
-  Major Basin
  -  Minor Basin
  -  #s signify stream order classification "HQ" is High Quality State designation
  -  Wetlands
  -  Hydric Soils
  -  Floodway
  -  100 Year Flood Zone
  -  500 Year Flood Zone
  -  Township Border
  -  Road Network

**Data Source:**  
 National Wetlands Inventory (NWI) digital wetlands data, U.S. Fish and Wildlife Service, 1997; Digital Q3 Flood Data, Federal Emergency Management Agency, 1997; Soil Survey Geographic data base for Chester County, U.S. Dept. of Agriculture, Natural Resources Conservation Service, 1997.

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 Chester County, Pennsylvania

### Comprehensive Plan



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### **Groundwater**

Groundwater is closely related to and highly dependent on the regional geology. The geological formations and the underlying bedrock determine both water quality and quantity. The porosity and density of the bedrock, and the number of cracks and fissures present, dictates the amount of groundwater that can be stored and how easily the water can be extracted via a well. Bedrock also varies significantly in terms of the ability to filter pollutants. When surface water seeps to the aquifer, it is cleansed of many pollutants as it filters downward. Sediment and chemicals are then trapped in the rock. Limestone, for instance, does not provide good filtration because the rock is highly soluble and large channels tend to form, which can rapidly convey pollutants, leading to groundwater contamination.

West Caln Township has three distinct hydro geologic areas as indicated in **Map 4-1**. The majority of the Township, which lies in the Brandywine Creek Basin, is underlain by bedrock with moderate water yields. The northwestern region of the Township, that area in the Pequea Creek sub-basin, is underlain by a different bedrock with lower yields of groundwater. The most sensitive area in terms of groundwater is the Compass vicinity which is underlain by limestone. Limestone is highly soluble and the resulting larger cracks and fissures do not provide a high level of filtration, also, the dissolving of the limestone can result in channels which can readily carry contaminants leading to groundwater contamination. Although limestone can yield high amounts of groundwater, caution should be used in tapping limestone as a source for potable water.

### **Wetlands**

Although wetlands are not extensive in Chester County, those that are present are environmentally important. Wetlands are defined by the U.S. Corps of Engineers as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are determined by three different parameters: the periodic presence of water or wet conditions, the presence of hydric (wet) soils, and the presence of wetland vegetation.

Probably the most important function of wetlands is flood control. Stormwater runoff flows into wetlands and is naturally detained, and then released at a slow rate into adjacent rivers and streams. This detainment combined with a slow release reduces the erosion caused by rapid runoff and also reduces the amount of sediment reaching surface waters. Wetlands also filter storm runoff, preventing potential pollutants from entering streams and rivers. Depending on the type, wetlands can serve as groundwater recharge areas and provide important natural habitat.

The National Wetlands Inventory Maps, prepared by the U.S. Army Corp of Engineers, indicate that wetlands are found throughout West Caln Township. Most of the wetlands in Chester County are palustrine wetlands characterized by trees, shrubs and emergent plants such as cattails. The Township contains palustrine wetlands as well as a high number of riverine wetlands, or those typically associated with creeks and streams. Lacustrine wetlands are those found adjacent to lakes, but are too deep to support the characteristic vegetation; this type of wetland is found near the Coatesville Reservoir and Chambers Lake.

## **VEGETATIVE RESOURCES**

### **Natural Vegetation**

The land and water resources discussed previously, along with climatic factors, all combine to determine the type of biological resources found in any given area. The native vegetation contributes to regional character and provides environmental benefits. The Chester County Natural Areas Inventory (1994) describes the entire County as located in the Piedmont Section of the original Oak-Chestnut Forest Region. Once dominated by the American Chestnut, this region is now classified as a mixed oak forest comprised of red, white and black oaks mixed with poplar, red maple and beech.

### **Woodlands**

Most of West Caln Township was at one time heavily wooded, but over time the woodlands were cleared and converted to cropland. Some areas of the Barren Hills and the State Hills are steeply sloped and consequently probably proved unsuitable for agricultural purposes and have reverted to woodlands. These areas have evolved into significant forests, and the West Caln Open Space and Recreation Resources Plan identifies five deep woods forests. These are larger woodlands that provide a distinctive habitat and therefore constitute a different type of resource than that provided by residual woodland or wooded lots. The five areas described in the plan are as follows:

**Wagontown Forest:** Located north of Route 340 and east of Creamery Road, this forest covers the ridge north of Route 340 and includes a tributary of the West Branch of the Brandywine Creek.

**Birch Run Forest:** This forest wetland is located north of the Chambers Lake and buffers the Lake, reducing the amount of silt, sediment and pollution entering the water. It also provides important habitat not found elsewhere in the Township.

**Barren Hills Forest:** Located on the Barren Hills, this forest is the core of a large grouping of forests in the central region of West Caln Township.

**State Hills Forest:** This forest is located near the Phillipsville forest and together, they provide significant habitat. Some evidence of fragmentation is occurring.

**Phillipsville Forest:** This forest is one of the largest in the County and is located in both West Caln and Sadsbury Townships. The wetland known as Sandy Hill Swamp is located on the north end of the woodland.

### **SENSITIVE ENVIRONMENTAL AREAS**

Sensitive environmental areas in Chester County are identified in the Chester County Natural Areas Inventory (1994). This document was produced by the Pennsylvania Science Office of The Nature Conservancy and is intended to provide the technical information needed to assist municipalities in planning for the protection of significant flora, fauna and natural communities in Chester County. By documenting the importance of these resources and identifying their locations, appropriate planning can occur.

The document was compiled using several different resources and data collection methods. Information from the Pennsylvania Natural Diversity Inventory, which since 1982 has served as the primary data source for this type of information, was an important resource. In addition, The Nature Conservancy used maps, aerial photography, field surveys and data analysis to document, evaluate and prioritize the results of the Inventory.

The Inventory identifies two significant sites in West Caln Township. The first is the West Branch of the Brandywine Creek, which is recognized for its unique aquatic life; the second is the Sandy Hill Swamp, recognized for its unique properties relative to Chester County. These are described as follows:

#### **West Branch of the Brandywine Creek Aquatic Plants:**

The Inventory reports that certain species of plants found along the creek beginning at Birch Run and through Hibernia County Park and down to Route 340, are considered rare or uncommon in the State. The plants grow directly on the rocks along the stretches of the creek that receive direct sunlight for at least part of the day, and have swift currents and a bottom of boulders and gravel.

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**Sandy Hill Swamp:**

The Inventory reports this wetland as locally significant because there are few of this type and size in the County. Red maple is the dominant tree, arrowwood and spicewood are the dominant shrubs, and several species of ferns are noted; no rare species, however, were identified in this vicinity.

**HISTORIC RESOURCES**

The historical development of a community is evidenced through the transportation and settlement patterns, the evolution of the land uses, as well as the built environment. The history of a municipality is an important factor in its sense of place, sense of community, and overall quality of life. How a community evolved historically often can be indicative of how it evolves in the future. Recognizing the role of the local history in community planning and identifying strategies to protecting remaining historic resources is an important part of the comprehensive planning. The history of West Caln Township is summarized below. The primary source for this information is History of West Caln Township (1994).

**Summary of Historical Development**

The History of West Caln Township, (1994) by Joan M. Lorenz and the West Caln Township Historical Committee, recounts the settlement of the Township and describes its development through three centuries. It provides an important record by documenting the history of the first families, by describing early industry and economic activity, and by detailing the physical characteristics of buildings and other evidence of the local history. This account provides a permanent record of the history of the Township and lays the foundation for the historic preservation program that includes strategies for protecting remaining historic resources.

As is true of all of the area within William Penn's original land grant, including West Caln, a rich history existed long before the Europeans arrived. Many remains of the native inhabitants and their culture were evident as the Township began to be settled. Indian trails criss-crossed the region, Indian settlements and burial sites dotted the landscape, and evidence of farming, hunting and fishing could be found throughout the area.

According to the history, the first people in what is now West Caln Township were the Lenapes, which means "the people". The Lenapes first encountered Europeans during hunting and trapping expeditions in which furs were traded for other goods. When the Europeans, specifically the early English, Dutch and French settlers arrived permanently, they were required to coexist with a culture that lived off the land and was unfamiliar with the concept of private land ownership. The Lenapes were willing to share the land and its resources, but they were not prepared for the European system of settlement.

In 1682, William Penn was awarded a land grant that consisted of the area to become Chester, Philadelphia and Bucks Counties. Other land was deeded to William Penn by the Lenapes in 1685, with the Okehocking reservation, an area adjacent to the Brandywine Creek, reserved for the native people. Caln Township, whose name came from a community in England, was first designated in 1714. Caln was divided into East Caln and West Caln in 1728, and in 1733, shortly after this division, the land area of West Caln was surveyed for sale. The boundaries were then formalized, and West Caln was officially recognized as a Township in 1744.

An important physical feature that affected the development of West Caln Township was the Indian trail that became Old Peter's Road, named for Peter Bezellon, and is now known as Route 340. In the early 1700s, this route was designated as the main road between Philadelphia and Lancaster and was subsequently named King's Highway. Because it came to be frequently traveled, there were a number of inns and taverns that developed along this route, and several of these structures still exist.

Inns historically served as dining facilities, taverns, and shelter for travelers. Several of these enterprises located in West Caln Township functioned primarily as taverns, which were required to be licensed at that time. Historic taverns in the Township include the Mariner's Compass, Evan Lewis Tavern, the Barley Sheaf Tavern and the Turk's Head. One of the oldest was constructed in 1736, and was first known as the Farmer's and Mechanic's Inn. It was quite popular and in later years was purchased and expanded by a member of the Way family, one of the first families to settle in West Caln. The name of the tavern was then changed to "Sign of the Waggon" and was known locally as "the Waggon". Caverns beneath the structure have led historians to believe that this building was once a stop on the underground railroad. Still standing, this building is one of the oldest structures in West Caln Township.

Caleb Way, one of the first owners of the Waggon, also became the eventual proprietor of the Sandy Hill Tavern, located near the intersection of North Sandy Hill Road and the King's Highway. The Sandy Hill Tavern, also known as the Red Horse Tavern and the General Wolf, is one of three historic resources listed individually in the National Register of Historic Places; the Tavern was listed in 1980; the nomination form was prepared by Mark Waltz.

West Caln Township can also claim some level of historical importance as the original location of an early industry, the water-powered grist mill. The potential for water power along the Brandywine Creek was first discovered by a member of another of West Caln's first families, Francis Swain. He built a dam on the Creek just north of the King's Highway and established a grist mill. The complex, which included a store, was very successful and was purchased in the early 1800s by Samuel and Benjamin Hatfield. They subsequently built a rolling mill for the production of sheet iron near the grist mill. Several other buildings, including a railroad station, were constructed at later points and are now all included in the Hibernia-Hatfield Historic District listed in the National Register of Historic Places in 1984; the nomination form was prepared by Jane L.S. Davidson.

The establishment of another iron mill north of the Hatfield site in the mid-1790s was the beginning of the Hibernia Iron Works. The mill was founded by Samuel Downing, for whom Downingtown was named. Although quite successful, this mill was bought and sold several times during the early 1800s. The mill activity and the amount of acreage associated with the mill site expanded quite significantly, and it eventually reached its peak under the ownership of Charles Brooke who expanded the site to over 1700 acres. The Brooke family is also believed to have built the mansion currently on the property.

The Hibernia property continued to pass between different owners throughout the late 1800s, when it ultimately was sold to Colonel Franklin Swayne in 1894. Under his ownership the mill declined, but the mansion expanded. The property was willed to a cousin upon Swayne's death and was eventually sold to the County of Chester. Under the County's ownership, the mansion and its environs became a park. The mansion has been restored and is a focal point of Chester County's public park system. The Hibernia mansion was listed individually in the National Register of Historic Places in 1975; the nomination form was prepared by Jane L.S. Davidson.

West Caln's commercial and industrial activities changed as technological advancements began to affect the Township. Existing iron works expanded and new facilities were constructed. Mining of products such as kaolin clay, mica, iron ore and sand became important activities. Agriculture also began to grow in importance. As these activities drew more residents to the Township, schools and churches became community focal points, as did the rural villages.

Some of the most visible early buildings were the schools. The [History of West Caln Township](#) states that schools were required as per the Pennsylvania Constitution, but an educational system in West Caln was not actually put into place until 1837. A map dated 1847 indicated that there were five schools in the Township, the Compassville School House, Penn School House (later renamed the Sandy Hill School), Stony Hollow School House, Liggett School House and the Way School House. Several other small schools were built in the late 1800s and early 1900s and many of these have been converted to other uses.

Religious institutions often go hand-in-hand with schools. Schools and churches have historical importance especially in rural regions, because they serve not only their intended purpose, but also as social and cultural focal points. They tend to be the places to gather, to meet with neighbors, to participate in community and social events. The mid-to-late 1700s saw the rise of small churches throughout West Caln Township. One of the most significant of these churches is the St. John's Episcopal Church located in Compass. This church has served the congregation for over 250 years and is known to have played a key role as a safe haven in the underground railroad. Other churches historically important in the Township include the West Caln Baptist Church, the Zion African Methodist Episcopal Church and the Sandy Hill African Methodist Church.

The rural villages also are important in evaluating historical development. Village patterns can often be identified by reviewing the concentrations of development, including the location of early post offices. The History of West Caln Township indicates that the Wagontown Post Office is the oldest in West Caln Township, established in 1828. The Martin's Corner Post Office was established in 1871, but was only operational into the early 1900's. The Compass post office was established in 1883 as "Compassville", and it operated through 1918.

West Caln Township developed slowly throughout the early to mid-1900s. The industry that developed in the area eventually declined due to changes in technology. Automobiles allowed more mobility and residents were able to work outside the Township. The influence of the Amish in West Caln Township heightened the awareness of the prime agricultural lands and helped to moderate development. West Caln Township slowly evolved into a bedroom community with the commercial and industrial focus on agriculture and recreation.

### **Documentation of Historic Resources**

The historic resources in West Caln Township were first documented through the Chester County Survey of Historical Structures which took place 1979 to 1982. The main purpose of this survey in West Caln Township was to document the physical location and general condition of the Township's historic resources. This information was intended to serve as a basis for future survey activity. One hundred and forty-three sites were documented in West Caln in 1981 to 1982. Information sought through the survey included the approximate age and location of the property, current and historic use, associated outbuildings, building configuration, and type of architectural detailing. Photographs of the buildings are an important part of this record. The survey results provided preliminary documentation of historic resources in West Caln Township as follows:

#### **Survey Results**

36	Non-farm residences
87	Farm residences
2	Educational structures
6	Commercial structures
1	Religious structures
1	Row house
10	Other resources

In addition to the documentation provided by the Chester County Architectural Inventory, the Chester County Historical Society has Pennsylvania Historic Resources Survey forms on file for 12 West Caln historic properties. The Pennsylvania Historic Resource Survey requires more detailed information on the sites and generally includes historical background as well as information on the building's architecture. The properties documented in this manner include several architecturally and historically significant farmhouses, as well as the taverns known as the "Waggon" and the "Sign of the Compass".

The information from these surveys provide the Township with basic information needed to prepare a more detailed historic preservation plan and further define an historic preservation program.

### **PLANNING IMPLICATIONS**

- West Caln Township has many important natural features that greatly influence the amount and type of development that can take place. The underlying geology in particular limits potable water in several areas. The Township needs to ensure that natural features and the ability of the land to sustain residential units is taken into consideration when determining appropriate locations for new development.
- The agricultural industry has a long tradition in the Township due to the abundance of prime agricultural soils; however, development pressure is forcing conversion of these farms into residential subdivisions. The Township should implement measures to protect prime farmland and direct development away from this important resource.
- The unique rural character of the Township is being lost as farmland and open space are developed. Measures that would allow new construction while at the same time protecting prime agricultural soils and open space should be considered.
- The loss of the rural character is exacerbated by the fact that most development is occurring on large lots along road frontages and on prime agricultural soils. The use of access management techniques that reduce the impact of such development should be encouraged.
- The headwaters of the Brandywine Creek, the primary source of water for much of Chester County as well as points south, are located in the Township. This area needs to be protected to ensure an adequate water supply.
- The two reservoirs located within the Township's boundaries are important drinking water supplies and must be protected from potential contamination that may occur as the result of excessive development.
- Much of the new development occurring in the Township is small-scale, and thus largely avoids the standard review processes. Thoroughly reviewing small-scale development can help identify potential environmental problems such as excess stormwater runoff before it negatively impacts adjacent properties.
- When development occurs, rural historic resources are often lost. Encouraging the protection of historic resources through the site plan review process could result in the preservation and adaptive reuse of rural historic resources.

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## Chapter Five

### COMMUNITY FACILITIES AND SERVICES INVENTORY

Community facilities are considered to be the public buildings and structures that house programs and activities essential to municipal government operations. Public services include activities ranging from police and fire protection to libraries and recreation programs. The extent to which facilities and services are available in any one municipality is dependent on many factors including population, tax base, circulation system and regional location.

Community facilities and public services can be provided in any number of ways depending on the needs of the population, the philosophy of the municipal officials, the financial resources available, and whether these are offered regionally. Municipalities can provide required services by financing the activities with available funding, or by contracting with private or quasi-public entities, thereby tailoring the activities and monetary expenditures to specific needs. Another option is a multi-municipal approach to providing services in which several municipalities share in the cost of services. For rural municipalities with lower populations and densities, the option of contracting with outside entities or providing services through multi-municipal arrangements is more common.

This chapter describes the community facilities and public services as they presently exist in West Caln Township and identify any needs that are not adequately addressed. Specific elements to be discussed are as follows:

#### **MUNICIPAL ADMINISTRATION**

West Caln Township is a township of the second class as defined by the Commonwealth of Pennsylvania, and as such is subject to the provisions of Act 60 of 1995. The Commonwealth provides for two classes of townships, with those of the first class defined as having at least 300 persons per square mile. All others, with the exception of home-rule townships, are townships of the second class.

#### **Board of Supervisors**

Townships of the second class are governed by a board of three supervisors, which if approved by the electorate, may be increased to five members. They are elected to six year terms of office. West Caln Township is governed by three elected supervisors, who in turn appoint a secretary and a treasurer in compliance with the Act. In West Caln Township's case, the Township manager currently serves as the secretary.

The board of supervisors is mandated to meet at least once a month in compliance with notice required through the Sunshine Act. The general powers of the supervisors include making and adopting ordinances, by-laws, rules and regulations. The supervisors also have the power to manage and control the township's finances and to maintain the peace, good government, health and welfare of the township's citizens. An important power of the supervisors is to plan for the development of the land through zoning, subdivision and land development regulations in accordance with the Pennsylvania Municipalities Planning Code.

#### **Advisory Bodies**

The board of supervisors has the authority to appoint boards and commissions to act in an advisory capacity. The following are the board and commissions established in West Caln Township.

### **Commissions**

Planning Commission - The planning commission consists of seven members serving four year terms. Primary responsibilities include preparing and updating the comprehensive plan, preparing zoning and subdivision and land development ordinance amendments, reviewing subdivision and land development applications, and making recommendations to the board of supervisors.

Historical Commission - The historical commission is advisory and consists of seven members serving four year terms. Primary responsibilities include recording the Township's history, advising the Board of Supervisors on matters pertaining to historic preservation, and reviewing and commenting on subdivision and land development plans.

Parks and Recreation Commission - The parks and recreation commission consists of five members serving four year terms. The primary responsibility is to advise the Board of Supervisors on implementing the parks and recreation component of the Open Space, Recreation and Environmental Resources Plan.

### **Boards**

Zoning Hearing Board - The zoning hearing board is a three member, quasi-judicial board with one alternate, with members serving alternate three year terms. The primary responsibility is to hear challenges to the zoning ordinance, make determinations on requests for variances and special exceptions, and if necessary, review interpretations issued by the zoning officer. Although appointed by the board of supervisors, the zoning hearing board is judicial and decisions are not subject to approval by the board of supervisors.

Vacancy Board - The vacancy board is a three member board serving one year terms. The primary responsibility is to fill vacancies on the board of supervisors if needed.

Agricultural Security District Advisory Board - The agricultural security district advisory board is composed of five members, each serving at the discretion of the supervisors. The board's primary responsibility is to make recommendations to the supervisors on parcels to be included in Agricultural Security Districts.

Additionally, the board of supervisors has the authority to establish ad-hoc committees to undertake special activities for the Township. Such committees were used for the preparation of the Open Space Recreation and Environmental Resources Plan and this Comprehensive Plan Update.

### **Municipal Finance**

#### **Revenues**

Townships of the second-class are authorized to collect both real estate taxes and earned income taxes. The maximum millage rate allowed for a Townships of the second class is 14 mills. The millage rate in West Caln Township was 2.5 mills in 1997, down from 4.0 mills in 1990, and is one of the lowest rates in the entire County. The 1995 assessed valuation of real estate was reported at \$15,942,060.

The Township charges a 1 percent earned income tax which is split between the Township and the Coatesville Area School District. Revenue is also received from the property transfer tax. In 1997, the revenues derived from these sources equated to approximately 54 percent of the Township's total budget, as compared to a 1993 average of 47 percent reported in the Chester County Profile (1994). Revenue sources as projected by West Caln Township's 1997 budget are found in **Table 5-1**.

TABLE 5-1

**GENERAL FUND REVENUES**  
**West Caln Township General Fund Revenues as a Percentage of the Budget: 1992 and 1997**

ACCOUNT TITLE	1992 BUDGET	1997 BUDGET
Taxes	67%	54%
Licenses and Permits	1%	3%
Solid Waste Disposal	1%	2%
Fines and Forfeits	1%	2%
Interest, Rents and Royalties	4%	2%
State Capital and Operating Grants	20%	34%
Zoning and Planning	6%	3%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Source: West Caln Township Budget: (1992 and 1997)

**Expenditures:**

Supervisors of second-class townships have broad authority with regard to the expenditure and allocation of revenues. The Township Code states that if no specific authority is given for the payment of costs incurred in the exercise of any power contained in the act, the expenses may be paid from the general fund. Township expenditures vary greatly according to the population, level of services, and extent of infrastructure. Expenditures as projected by West Caln Township's 1997 budget are found in **Table 5-2**.

TABLE 5-2

**GENERAL FUND EXPENDITURES**  
**West Caln Township General Fund Expenditures as a Percentage of the Budget: 1992 and 1997**

ACCOUNT TITLE	1992 BUDGET	1997 BUDGET
General Government	4%	3%
Tax Collection	3%	2%
Law and Financial Administration	1%	3%
General Government Administration	10%	8%
Engineer	2%	4%
General Government, Buildings and Plan	2%	1%
Public Safety	6%	13%
Volunteer Fire and Ambulance	5%	4%
Planning and Zoning	2%	1%
Solid Waste Collection	8%	6%
Highway Maintenance and Liquid Fuel Expenditures	43%	41%
Culture and Recreation	1%	1%
Judgements and Losses	13%	13%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Source: West Caln Township Budget: (1992 and 1997)














### **Municipal Buildings**

West Caln Township owns and maintains two facilities, the Township Municipal building and a road maintenance garage. The Municipal Building was completed in 1989 at a cost of \$425,000 with no outside financial assistance and with no debt incurred. The new facility is located at 721 W. King's Highway. It contains municipal offices, meeting rooms and public safety facilities and was designed to accommodate expansion. The main meeting room seats approximately fifty. The municipal garage was constructed in the mid-1940s and was expanded in 1986 through the construction of three additional bays. It is located at 125 Creamery Road and houses road maintenance vehicles and equipment. These facilities are presently adequate for both current and projected needs. Community facilities are indicated on **Map 5-1**.



# Map 5-1

## Community Facilities

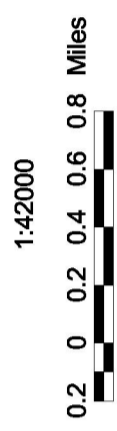
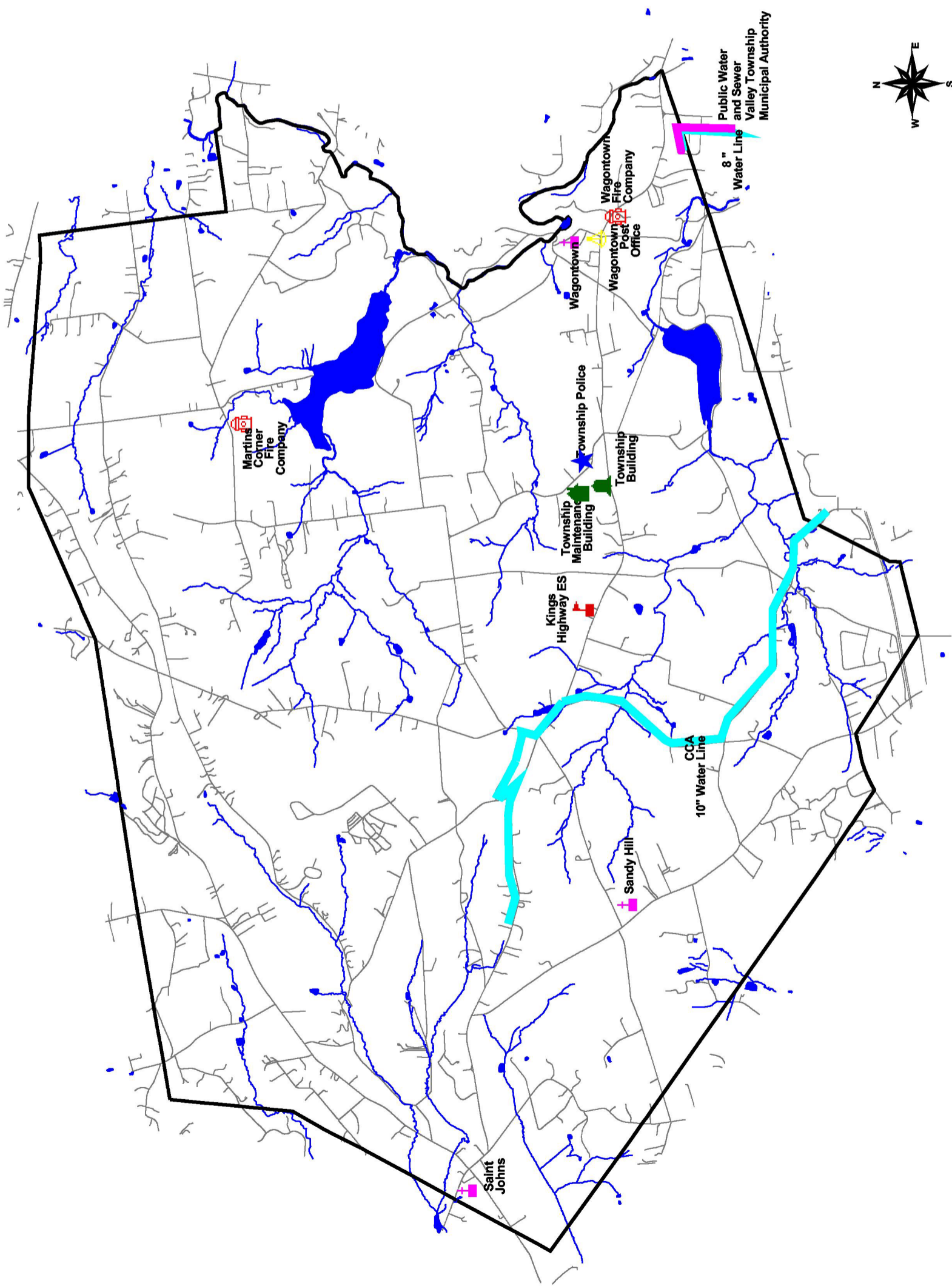
-  Hydro
-  Township Border
-  Hydrology
-  Roads Network
-  Water Lines
-  Sewer Lines
-  Municipal Building
-  Police Department
-  Fire Company
-  Maintenance Building
-  Post Office
-  School
-  Church

Data Source:  
Chester County Community Facilities Inventory.

Material used in the preparation of this map has been interpreted by Chester County Planning Commission staff from preliminary data sources. The material has not been processed for quality control and is only used for draft mapping purposes. The planimetric and cadastral data on this map cannot be used for any other purpose without the express approval of the County of Chester.

**WEST CALN TOWNSHIP**  
Chester County, Pennsylvania

Comprehensive Plan



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## **SOLID WASTE DISPOSAL**

Act 97, the Solid Waste Management Act of 1980, requires municipalities with a density of over 300 people per square mile to prepare and submit a solid waste management plan. West Caln Township adopted the Chester County Solid Waste Management Plan following its completion. Act 101, passed to supplement Act 97, further required that a curbside recycling program be established in an effort to reduce waste volumes. West Caln Township, with a population density of approximately 282 persons per square mile, does not meet this minimum criteria and is therefore not subject to the provisions of Act 97 or Act 101. The Township, however, will likely reach this threshold during the timeline of this plan.

Solid waste collection in the Township is privately contracted by individual residents. There are five major haulers operating in the Township. These are Charles Blosenski Disposal, A.J. Blosenski, Inc., Diehm's Disposal, Browning-Ferris Industries (BFI) and Waste Management, Inc. West Caln Township does not require licensing at the municipal level, however, Chester County's Flow Control Ordinance (as amended) requires haulers meeting specific criteria to be licensed.

West Caln Township encourages recycling and provides recycling bins for clear glass and aluminum at the maintenance garage. They also offer bulk item recycling four times per year. Additionally, the Wagontown Fire Company and the Kings Highway School offer newspaper recycling at their respective facilities.

## **WASTEWATER FACILITIES**

Act 537, the Pennsylvania Sewage Facilities Act of 1966 (as amended), requires that each municipality have an official Sewage Facilities Plan, typically referred to as the "537 Plan". The purpose of the plan is to identify future sewage disposal needs in light of anticipated development and set forth policies for meeting those needs.

West Caln Township's Sewage Facilities Plan was adopted in 1978. Based on the inventory information and a review of projected development, the plan lists recommendations intended to address the anticipated needs. The Township is planning to update the Sewage Facilities Plan upon completion of the Comprehensive Plan Update. Recommendations addressing treatment approaches as defined in the 1978 plan are listed as follows:

- Encourage the use of on-site disposal systems in suitable soils. In addition to conventional septic tank/soil absorption systems and the alternatives listed, consider other systems where permitted by the State and by the County.
- In areas of concentrated development, encourage land application or marsh-pond-meadow systems.
- Maintain thorough management/control procedures with regard to private sewage treatment systems within the borders of West Caln by requiring and entering into binding agreements with the owners.
- Provide information to current residents regarding the benefit of reducing the daily liquid volume entering their septic tanks.
- Enact an ordinance or amend the appropriate existing ordinance to require water conservation devices.
- Establish an active policy of wastewater treatment system applications review to ensure that developers are designing systems which will promote and serve orderly and reasonable growth.
- Adopt a policy of annual review of the Township 537 Plan including a continuing application of water management and wastewater treatment techniques.

**Current Inventory**

Different approaches are available for disposing of solid waste. The method utilized is dependent on a variety of factors including population, density, and individual site characteristics. Sewage disposal facilities in Chester County can essentially be classified in four ways. The ownership of facilities varies as well, and municipalities, municipal authorities or private entities including individuals, corporations or homeowners associations, can own sewage disposal facilities.

**Public Systems** are centralized systems for sewage collection and treatment. These are commonly referred to as public sewers and these can be either publicly or privately owned, with most being public facilities.

**Package Plants** are smaller facilities that usually serve only one development or commercial facility. Treatment takes place through a mechanical or chemical process with the final step dependent on stream discharge.

**On-Lot Systems** are individual systems that are built to accommodate a single dwelling unit. These systems vary, ranging from simple to highly engineered, based on soil characteristics at the site. On-lot systems designed to accommodate one or more dwelling units are known as community on-lot disposal systems. These systems can serve multiple dwelling units (such as a mobile home park) or commercial or industrial type flows. Most on-lot systems are privately owned.

**Spray Irrigation Systems** are those in which treated sewage effluent is sprayed on fields as the final step in the treatment process. Primary and secondary treatment is accomplished through lagoons or through mechanical or chemical means. These systems usually serve a single development and can be either publicly or privately owned.

The majority of West Caln Township is served by on-lot sewage disposal systems. Only one development is served by public sewer and this service is provided by the Valley Township Authority. In addition, two individual residences in the southern sector of the Township rely on individual package plants with stream discharge. Public and community systems are identified in **Table 5-3**.

TABLE 5-3

**PUBLIC AND COMMUNITY SEWAGE TREATMENT FACILITIES**  
**Types of Public and Community Treatment Facilities in West Caln Township**

<b>DEVELOPMENT NAME</b>	<b>TYPE OF SYSTEM</b>	<b>TYPE OF FLOW</b>	<b>CONNECTIONS</b>
Country Ridge Development	Collection and Conveyance	100% Residential	16 Residential
Hideaway Mobile Home Park	Four Septic Tanks, Two Drainfields	100% Residential	40 Residential
Imperial Mobile Home Park	Four Septic Tanks, Ten Pressure Dosed Beds	100% Residential	54 Residential
Perry Phillips Mobile Home Park	Three/Four Septic Tanks Sub-surface Drainfields	100% Residential	21 Residential
Shady Oaks Terrace	Septic System with Drainfield	100% Residential	15 Residential
King's Highway Elementary School	Septic System with Drainfield	100% Institutional	1 Institutional

Source: Valley Township Sewer Authority (1997)  
 Chester County Sewage Facilities Inventory (1991)  
 Chester County Health Department (1997)

The Township's Sewage Facilities Plan Update will include an evaluation of anticipated growth, a review of current practices and recommendations based on the analysis of future needs.

## **WATER FACILITIES**

The systems supplying water vary significantly in size and can be either publicly or privately owned and operated. The larger companies in Chester County include Philadelphia Suburban Water Company, West Chester Area Municipal Authority, and City of Coatesville Authority (CCA). The Chester Water Authority, although not considered a local supplier despite some minor tap-ins, does greatly influence water in the County. The water suppliers are in a continual state of transition with many of the smaller companies being sold and combined with larger companies.

### **Current Inventory**

In Chester County, water is supplied from both surface sources and from wells. As described in a previous section, groundwater yields are sufficient to accommodate the lower density development that, to date, has been typical of Chester County. Public water systems are defined as those that provide 15 connections or serve 25 persons for at least 60 days per year. Public water systems can be further classified as either community or non-community water systems. These are defined as follows:

**Community Water Systems** provide for 15 connections or serve 25 persons on a regular basis throughout the year. This can include water companies, authorities, multi-family complexes and certain institutions.

**Non-community Water Systems** are classified as non-transient, non-community systems consisting of 25 of the same persons at least six months per year and include facilities such as schools and campgrounds. Other systems such as those providing services to restaurants, businesses and churches would also qualify as non-community water systems.

Most of West Caln Township is dependent on individual, private wells as the source for potable water. The density of the Township is such that the need to develop other types of systems as been minimal.

Two sectors of the Township are served by public water. The first is the south-central sector of the Township. The City of Coatesville Authority services this area via a water line extending north on Airport Road, then north on Ash to King's Highway, and west on King's Highway. It serves the properties north of Kings Highway along Woodland Drive and then terminates at Pierce Lane. The second area served by public water is the Country Ridge development located southwest of Route 340 and Mt. Airy Road. This development is a slightly higher density than others in the Township and water is provided by the Valley Township Authority. The line parallels Mt. Airy Road and follows Ridge View Drive. The public and community water systems are identified in **Table 5-4**.

**TABLE 5-4**  
**PUBLIC WATER SYSTEMS**  
**Public Water Systems in West Caln Township**

<b>WATER SYSTEM</b>	<b>DOMESTIC CONNECTIONS</b>	<b>COMMERCIAL CONNECTIONS</b>	<b>INSTITUTIONAL CONNECTION</b>	<b>MULTI-FAMILY CONNECTION</b>
City of Coatesville Authority (West Caln Only)	112	2	1	1
Valley Township Authority (West Caln Only)	16	0	0	0
Hideaway Mobile Home Park	40	0	0	0
Imperial Mobile Home Park	54	0	0	0
Maplewood Mobile Home Park	31	0	0	0
Perry-Phillips Mobile Home Park	21	0	0	0
Birchview Campground	120	0	0	0

Source: City of Coatesville Authority (1993)  
Valley Township Authority (1996)  
Chester County Water Facilities Inventory (1991)  
Chester County Health Department (1996)

With several areas subject to low groundwater yields due to the underlying geology, and the high risk of well contamination in other areas, the availability of groundwater is a cause for concern. Thus far, most new developments have been reliant on individual wells to meet needs, and the Township will likely continue to see similar kinds of proposals, at least in the near future.

In an effort to ensure that the quantity and quality of groundwater is preserved and that those residents currently dependent on groundwater do not experience reductions in water supplies caused by new development, the Township will need to be vigilant in monitoring the impact of proposed development. Several areas of the Township have experienced either reductions in water supplies or outright contamination of wells, some of which have necessitated the unplanned extension of public water lines. To avoid the environmental problems associated with groundwater contamination, development should be guided to those areas which can accommodate new construction in light of environmental constraints such as groundwater supply.

### **Environmental Mitigation Sites**

There are two sites in West Caln Township that were determined by the U.S. Environmental Protection Agency as Superfund sites. These two sites are the Blosenski Landfill and the William Dick Lagoons. Each has presented the Township with environmental, specifically groundwater, contamination issues.

The Blosenski Landfill, located in south-central West Caln Township, operated as a landfill for disposal of industrial wastes between 1940 and 1970. The landfill contained no lining of any type and paints, solvents and industrial chemicals were left to leach directly into the ground. The landfill ceased operation in 1971 and was listed as a Superfund site in 1983. Remediation efforts began in 1986. The EPA is involved in a four-phase clean-up effort at the site.

The William Dick Lagoons, located in north-central West Caln Township, consists of three unlined lagoons where wastes, including petroleum products, latexes and resins, were dumped between 1950 and 1970. The lagoons, estimated by EPA to be about two acres in total area, contained more than four million gallons of wastewater contaminants. Some clean-up occurred in 1971 as a result of intervention by the Pennsylvania Department of Health. It was listed as a Superfund site in 1987. Clean-up of the site is underway and is being addressed in two stages.

Both of these sites have contaminated groundwater supplies in the vicinity and land uses dependent on wells for potable water supplies will need to be monitored regularly. The location of these Superfund sites, along with an estimate of the extent of contamination, is indicated on a map available at the West Caln Township Building. More information on the contaminants, the mitigation efforts, and how the contamination affects the granting of well permits, may be obtained by contacting the Chester County Health Department.

### **STORMWATER MANAGEMENT**

Stormwater management practices are governed by Act 167, the Pennsylvania Stormwater Management Act of 1978. This Act requires the adoption of ordinances and other measures to regulate development in the municipality in a manner consistent with watershed management provisions. In Chester County, stormwater management planning is well underway and municipalities are encouraged, as interim measures, to integrate Best Management Practices into municipal ordinances.

West Caln Township addresses stormwater management in the subdivision and land use development ordinance. General objectives outlined in the ordinance are to: require unimpeded flow of natural water courses, drain low points along streets, intercept stormwater run-off at appropriate points, and accommodate expected volumes of stormwater run-off within subdivisions and other land developments. Specific objectives included in the ordinance reflect Best Management Practices and are summarized as follows:

- To the maximum possible extent, stormwater shall be retained on site and ultimately percolated into the ground rather than be permitted to drain off, in order to minimize the flood-enhancing potential of a subdivision or land development and to maximize the recharge of ground-water supplies within West Caln Township.
- Erosion of soil, both during and after construction shall be minimized, and the subdivision or land development shall, with respect to control or erosion, comply with the standards set forth herein.
- Stormwater shall not be discharged onto adjacent properties in a manner which results in an increase in peak volume or a concentration of flow over and above the peak volume and pattern of concentration existing prior to development of the tract, or an increase in velocity of storm water flow.

- Retardation and percolation facilities should consist, wherever possible, of individual on-lot facilities such as berms, small basins, french drains, cisterns, seepage pits, and seepage terraces, rather than large retention basins designed to control stormwater run-off from several lots and/or street areas. Large retention basins will be permitted only where on-lot facilities cannot be provided.

Along with these provisions, performance standards and construction standards are outlined as well. These measures also reflect Best Management Practices. Stormwater management will continue to be a challenge because much of the new construction taking place is on single lots or in small subdivisions which are generally not subject to the same level of review in terms of stormwater runoff as the larger proposals. Although West Caln has important regulatory measures in place, enforcing these provisions is critical to ensuring that stormwater runoff is properly addressed.

## **PARKS AND RECREATION**

The West Caln Township Open Space, Recreation and Environmental Resources Plan (OSRERP) (1995) provides a full analysis of park and recreational facilities available to West Caln residents. The following sections identify the parks and recreational facilities available to West Caln residents, but do not attempt to reiterate the inventory contained in the Open Space Plan. More information, including a description of each facility, can be found in that document.

**Regional Parks** are large scale parks that usually extend beyond municipal boundaries to serve regional populations. These include park and recreational lands provided by federal or State governments and generally promote passive use. The Chester County Open Space and Recreation Study (1982) (CCOSRS) suggests that regional parks be at least 1,000 acres in size. It further suggests that 20 acres of regional parks be available for each 1,000 individuals within 30 miles. Additional information on these parks can be found in the West Caln Township OSRERP.

### Regional Parks:

Evansburg State Park  
French Creek State Park  
Marsh Creek State Park  
Ridley Creek State Park

Additional Areas: Fairmount Park, White Clay Creek Preserve, Walter S. Carpenter State Park, Ferndale Nature Center and Blue Marsh Lake

**Subregional Parks** are large tracts of open space at least 400 acres in size intended to fill the gaps between regional and community parks. These are usually parks provided by a county government. They can provide for both active and passive uses. The CCOSRS suggests 8.5 acres of subregional parklands for 1,000 in population with a 7.5 miles service radius. Additional information on these parks can be found in the West Caln Township OSRERP.

### Subregional Parks:

Hibernia County Park  
Springton Manor Farm Park  
Struble Lake Access and Struble Trail



**Community Parks** are municipal parks usually at least 20 acres in size and accommodating both active and passive uses. They often have specialized facilities such as tot lots, handicapped trails or event facilities. A service radius of 2.5 miles is suggested by the CCOSRS.

Community Parks:

West Caln Township has one park, Layton Community Park, that meets the basic requirements of a community park. Other facilities are present in the Township that address this need at some level. Additional information on these parks can be found in the West Caln Township OSRERP.

All Seasons Family Campground  
Birchview Farm Campground  
Coatesville Country Club  
Coatesville Reservoir  
Chambers Lake  
Hidden Acres Campground  
Honey Brook Rod and Gun Club  
Kings Highway Elementary School  
Layton Community Park (under development)  
Martin's Corner Fire Company  
Wagontown Fire Company and Swim Club  
West Caln Sportsmen's Club  
West Caln Township Building

**Neighborhood Parks** are also municipal parks and are intended to serve those within a half mile radius. Although these parks are usually designed for active recreational activities and provide ball fields, jogging trails and play apparatus, they may be more passive as well. It is suggested that 6 acres of neighborhood parks be provided for each 1,000 in population.

In West Caln Township, churches often have land available for recreational purposes. These facilities are mostly private and should only be used by the public after permission is granted. Since they can represent significant open space, however, they should be considered part of the recreational facility network. Additional information on these parks can be found in the West Caln Township OSRERP.

Neighborhood Parks:

Hibernia United Methodist Church  
Kings Way Independent Church  
Sandy Hill Mennonite Church  
St. Johns Episcopal Church  
Wagontown Union Chapel

**Recreational Facilities and Programs** are those facilities, and the programs that usually take place, within a park. Facilities consist of ballfields, swimming pools, tennis courts and similar facilities. Recreational programming is usually done at the municipal or County level and consists of the act of organizing of recreational activities or events. A listing of these standards, as well as additional information on the programs referenced, are contained in the West Caln Township OSRERP.

Recreational Facilities and Programs:

Chester County Park and Recreation Department  
 Coatesville Area School District  
 Caln Athletic Association  
 Brandywine YMCA  
 Various Adult Athletic Leagues  
 Various Youth Athletic Leagues  
 Municipal Senior Centers  
 Wagontown Swim Club

West Caln Township has many park facilities and recreational opportunities available; however, it does not meet the accepted standards in terms of services or facilities. The development of new services and facilities that fill the gaps, as described in the Open Space, Recreation and Environmental Resources Plan, should be evaluated.

**EMERGENCY SERVICES**

Emergency services include police, fire and ambulance services. West Caln Township has its own part-time police force. Fire protection is handled by two volunteer fire companies, and ambulance service is provided by five fire companies.

**Police**

West Caln Township's part-time police department consists of six part-time police officers, including the Chief of Police. The officers are part time averaging 492 hours per month. Back-up is provided by the State Police. In 1996, the Police Department responded to 1,782 complaints, and 63 accidents, and made 495 arrests.

The Police Department is physically located in the Township municipal building. It operates three vehicles: two sedans and a sport-utility vehicle. All are equipped with scanners and computer systems. An average of 3,660 miles was logged each month during 1996.

**Fire**

Fire service in the Township is provided by two fire companies; Martin's Corner Fire Company and Wagontown Fire Company. Martin's Corner Fire Company (Station 34), is located on Martin's Corner Road. In 1997 it had approximately 40 volunteer fire fighters. This fire company was established in 1947 and covers West Caln Township and portions of West Brandywine and Honey Brook Townships. Equipment consists of the following:

Engine 34-1	1988 International 1000 GPM Pumper
Engine 34-2	1975 Ford 1000 GPM Pumper
Brush 34	1972 Willys Jeep
Squad 34	1977 Ford Squad Truck
Squirt 34	1989 Spartan Squirt (55 ft. ladder and 500 gal. capacity)
Tanker 34	1979 Kenworth Tanker
Ambulance 34	1996 Ford Ambulance
Ambulance 34-2	1991 Ford Ambulance

The Wagontown Fire Company (Station 35) had approximately 35 volunteer fire fighters in 1997. It was established in 1947 and is located at Wagontown Road and West King's Highway. It serves West Caln and portions of West Brandywine and Valley Townships. Equipment consists of the following:

Engine 35	1983 Ford 1000 GPM Pumper
Rescue 35	1988 Ford 1250 GPM Rescue Pumper
Brush 35	1967 Dodge Powerwagon
Boat 35	16 Ft. Boat and Trailer

West Caln Township also participates in mutual aid fire services, whereby municipalities that require assistance with fires can contact nearby communities for such services.

### **Ambulance**

The provision of ambulance service in Chester County has recently undergone changes. Ambulance response areas were previously assigned to the fire companies by the municipality. Due to changes in Title 28, the Pennsylvania Health and Safety Code, pertaining to the provision of emergency medical services, this responsibility has shifted to newly established Regional Emergency Services Councils. In Chester County, the Regional Emergency Services Council operates at the County level.

Ambulance service in West Caln Township is divided into five service areas: the northwestern sector of the Township is served by the Honey Brook Fire Company; the northeast sector is served by the Martin's Corner Fire Company; the southwest sector is served by the Parkesburg Fire Company, the south-central sector is served by the Pomeroy Fire Company; and the extreme southeast sector is served by the Washington Hose Company (Coatesville).

Emergency support of nearby hospitals is available through the Brandywine Hospital SkyCare and Medic 93. Under extreme conditions requiring mass care facilities, emergency support is available through churches and fire companies, and through the schools.

Ambulance service is currently being reviewed by the Chester County Emergency Services Department.

### **EDUCATION**

There are fourteen school districts in Chester County. West Caln Township is part of the Coatesville Area School District (CASD), which was established in the early 1960s when the Coatesville School District and the Brandywine School District formally combined. The CASD encompasses most of the west-central regions of the County, and in addition to West Caln, CASD includes the City of Coatesville, the Boroughs of South Coatesville and Modena, and the Townships of Caln, East Fallowfield, Sadsbury, Valley and West Brandywine. The district is administered by an elected School Board consisting of nine members. According to the CASD Public Relations Office, the total enrollment for 1996-1997 is 8,152. Facilities include seven elementary schools, three middle schools, a senior high school and an intermediate school that is physically part of the senior high school campus. The schools of the CASD are described in **Table 5-5**.

TABLE 5-5

**COATESVILLE AREA SCHOOL DISTRICT  
Description of School Size and Enrollment**

Public School	Municipality	Enrollment	Capacity	Grades	Professional Staff
Benner Elementary	Coatesville	381	400	K-5	24
Caln Elementary	Caln	726	600	K-5	40
East Fallowfield Elementary	East Fallowfield	385	425	K-5	27
Friendship Elementary	West Brandywine	590	425	K-5	28
KINGS HIGHWAY Elementary	WEST CALN	631	600	K-5	35
Rainbow Elementary	Valley	816	750	K-5	46
Reeceville Elementary	Caln	631	600	K-5	35
Gordon Middle School	Coatesville	471	401	6-8	50
N. Brandywine Middle	Caln	707	653	6-8	60
S. Brandywine Middle	East Fallowfield	705	721	6-8	60
Coatesville Intermediate	Coatesville	931	1241	9-10	80
Coatesville Area Senior High	Coatesville	1174	1130	11-12	70

Source: Coatesville Area School District Public Relations Office  
Coatesville Area School District Annual Report 1995-96  
Kings Highway School

In addition to the public schools listed, the CASD District also administers the Center for Arts and Technology - Brandywine Campus. Private schools located within the CASD boundaries include the Coatesville Area Catholic Elementary, three Lan-Chester Christian Schools and the Sandy Hill Amish School. The Lan-Chester Christian Schools are located at the Presbyterian Church of Coatesville, the East Brandywine Baptist Church and on Airport Road in Valley Township. There are several nursery schools and pre-schools located in the region as well.

As indicated in **Table 5-5**, the only public school physically located in West Caln Township is Kings Highway Elementary School. This school is located on King's Highway just west of North Bonsall School Road. It is situated on a twenty acre parcel which includes two baseball fields and playground equipment. The site also includes a "science park", which is a wooded area with a trail system that is used as an outdoor classroom. This park is known as the Dr. Charles Stone Science Park.

Kings Highway Elementary School has 28 classes: 5 kindergartens, 5 first grades, 5 second grades, 4 third grades, 4 fourth grades and 5 fifth grades. The Kings Highway School is recognized as a Blue Ribbon School of Excellence at both the State and federal levels.

Most elementary age school children attend Kings Highway School with two exceptions. Children residing in the south-central part of the Township attend Rainbow Elementary School in Valley Township, while those residing near the eastern boundary of the Township attend Friendship Elementary School in West Brandywine Township.

### **Libraries**

The Chester County Library System consists of 17 facilities located throughout the region. There are four libraries near West Caln Township. These are the Coatesville Public Library, the Honey Brook Community Library, the Parkesburg Free Library and the Chester County Library in Exton. Residents of the Township have access to all County Library materials through any of these branches.

### **HEALTH CARE**

West Caln Township residents have access to a wide range of medical facilities within the region. There are nine major health care facilities in Chester County. According to the Community Facilities Inventory (1988), these facilities consist of five public hospitals, one private hospital, one federal veterans hospital and two medical centers. In addition, there are private health care facilities, clinics and offices in proximity to population concentrations. A wide range of human service facilities are available as well.

### **Hospitals and Medical Centers**

Four hospitals are located in Chester County within thirty miles of West Caln Township. West Caln residents are also in proximity to the major health facilities in other parts of Chester County, Lancaster County, Wilmington, Delaware, and within the Philadelphia metropolitan region. Health care services of all types are easily accessed by Township residents. Additionally, there are several medical centers, outpatient facilities and medical offices located throughout central Chester County. The hospitals located in Chester County within thirty miles are listed in **Table 5-6**.

**TABLE 5-6**  
**HOSPITALS**  
**Size and Location of Regional Hospitals**

<b>FACILITY</b>	<b>LOCATION</b>	<b>NUMBER OF BEDS</b>
Brandywine Hospital and Trauma Center	201 Reeceville Road Coatesville, Pennsylvania	215
Chester County Hospital	701 Marshall Street West Chester, Pennsylvania	234
Paoli Memorial Hospital	255 West Lancaster Pike Paoli, Pennsylvania	208
Southern Chester County Medical Center	1015 Baltimore Pike West Grove, Pennsylvania	51
Veterans Administration Medical Center	1400 Black Horse Hill Road Coatesville, Pennsylvania	493

Source: Brandywine Hospital (1996)  
 Chester County Hospital (1996)  
 Paoli Memorial Hospital (1997)  
 Southern Chester County Medical Center (1996)  
 Veterans Administration (1996)

#### **PLANNING IMPLICATIONS**

- The demand for police, fire and ambulance services will increase as the Township's population grows. The Township should monitor the adequacy of these services as significant changes may signal the need to reevaluate the current levels.
- As the population continues to grow, the Township will exceed the threshold requiring municipal recycling. The Township should begin preparing now to meet the requirements of this mandate.
- Past illegal dumping of chemical waste has resulted in two EPA superfund sites in the Township. These sites caused widespread environmental contamination, one of which necessitated the extension of public water supplies to affected residents. The Township has, and should continue, to work cooperatively with EPA in the clean-up efforts.
- Despite the stormwater management regulations contained in the Subdivision and Land Development Ordinance, erosion remains a concern in some areas. Stormwater management needs to be properly addressed during the review process, regardless of the size of the proposed development, in order to reduce erosion due to runoff.
- Most of the Township's residents rely on groundwater for potable water supplies. New development must be evaluated for its effect on existing groundwater resources to ensure that the quantity and quality of this critical resource is protected for those dependent on it.

- Updating the Township's Sewage Facilities Plan in accordance with future land use as projected in the Comprehensive Plan will provide guidance in evaluating new development. The majority of West Caln Township residents use individual on-lot sewage disposal systems which, if not properly maintained, could contaminate groundwater supplies and pose other environmental threats.
- The West Caln Township Open Space, Recreation and Environmental Resources Plan was adopted in 1995. The recommendations contained in this Plan address recreation and open space goals, many of which are mirrored in the Comprehensive Plan Update. Implementing the Open Space Plan will help the Township accomplish many of the resource protection goals contained in the Comprehensive Plan Update.
- As the Township continues to grow in population, there is an increasing need for communication between Township officials and the Coatesville Area School District to facilitate school facilities planning.

## Chapter Six

# TRANSPORTATION AND CIRCULATION INVENTORY

The efficient use of land as well as the local quality of life, is highly dependent on an effective circulation network. In order for the network to adequately serve the land uses, it must be continually reevaluated as new development occurs. Different types of land uses require different road characteristics, and meeting future transportation needs is dependent on understanding the current network.

This chapter documents the transportation and circulation system as it presently exists in West Caln Township and analyzes the various factors that influence the system. The elements to be discussed include the following:

### EXISTING LAND USE AND TRAFFIC

West Caln Township is one of the larger townships in Chester County in terms of land area and despite its rural nature, has approximately 74 miles of roads. The role of West Caln's road network in transporting people and goods was historically important to the County's development. Several of the earliest roads established in the County, as well as in the State, traverse the Township. The road system in West Caln evolved from the network of trails established by the native people. At that time, these trails were the most efficient way of moving from one location to another. As the region developed, the need for improved roadways became evident, new roads were constructed, and the historic circulation pattern gradually shifted.

West Caln Township, until recently, has remained primarily rural, with most of the population concentrated in or around a few focal points located at key intersections: Wagontown - located near the intersection of Wagontown Road and Route 340; Compass - located at the intersection of Route 10 and Route 340; Phillipsville - located at Wilmington Road and Airport Road; and Martins Corner - located at Cedar Knoll, Birdell and Martins Corner Roads. All are examples of rural villages that evolved in conjunction with the circulation network. New residential development in West Caln is still highly associated with the existing circulation network, but is not necessarily taking place in and around these villages.

The scenic qualities of the Township, along with its proximity to the Route 30 by-pass, have helped to transform the primarily agricultural community into a "bedroom community", or one that serves residential needs but not necessarily employment needs. Although approximately 15 percent of the residents remain in the Township for employment purposes, most work in other communities. The top five destinations, according to the 1990 U.S. Census being the City of Coatesville, the Boroughs of Downingtown and West Chester, and the Townships of West Whiteland and East Whiteland. These account for approximately 37 percent of work destinations outside of the Township.

New residential development has been occurring in traditional subdivisions, on private roads accessing the main transportation routes, and directly on the frontage of main roads. Most of this development has been occurring on lots of one acre or larger. The roads that once served only the agricultural community now are required to serve a growing suburban residential community and, as a result, the roads are now functioning differently than they were intended.

Commercial and industrial development in and around West Caln Township, although limited, still impacts the circulation network. The Pennsylvania Department of Transportation (PennDOT) reports that one of every nine vehicles traveling on Route 10 through the Township is now a truck. Route 10 is an important link to Route 1 and Route 41 to the south and the Pennsylvania Turnpike to the north. The commercial enterprises within the Township are scattered and serve mainly local needs. The only large industrial use is LGI, which is located in the Wagontown vicinity south of Route 340. The Hibernia County Park, north of Route 340 (King's Highway), is another important regional land use in the southeastern quadrant of the Township.



## COMPOSITION OF THE CIRCULATION NETWORK

West Caln Township has the sixth highest total road mileage in Chester County. Those municipalities with higher mileage are much more developed and more suburban in comparison. In Chester County, roads are either owned by the State or by the municipality. The circulation network in West Caln Township consists mainly of low volume, municipal roads that tend to be narrow and winding. Because the Township is primarily rural, major improvements have been unnecessary to date. All of the roads, with the exception of the expressway which traverses the very southern tip of the Township, are two-lane, serving mainly local traffic. Road mileage is indicated in **Table 6-1**.

**TABLE 6-1**

### ROAD MILEAGE Chester County Municipalities with the Highest Number of Road Miles

Municipality	State Miles	Municipal Miles	TOTAL
Tredyffrin Twp.	55.76	101.57	157.33
West Goshen Twp.	40.09	74.43	114.52
Willistown Twp.	33.81	52.68	86.49
West Bradford Twp.	26.12	55.67	81.79
Uwchland Twp.	12.82	62.05	74.87
<b>West Caln Twp.</b>	<b>18.50</b>	<b>55.42</b>	<b>73.92</b>

Source: Pennsylvania Department of Transportation  
Roadway Inventory Summary (1994)

### East-West Transportation Corridors

The highest volume road passing through the Township is the Coatesville-Downingtown by-pass, U.S. Route 30. This four-lane divided highway is part of a system that traverses the entire County and is the primary east-west transportation corridor in the region. Since the completion of the Exton by-pass, Route 30 functions as a limited access highway providing uninterrupted travel from Route 202 and the outskirts of Philadelphia in the east, nearly to the Lancaster County border. Although this road only transects the extreme southern tip of West Caln Township, its influence is none-the-less quite significant because it allows for easy access to employment centers which will likely influence new housing construction in the Township.

Although the Route 30 by-pass has a major effect on the Township, the most important road in terms of Township travel is Route 340 (King's Highway). According to the History of West Caln Township, this road was previously known as Old Peter's Road, named for an early trader and one of the Township's first residents, Peter Bezellon. He used this route, once a native trail, in his trading expeditions. The route was recognized for its importance and subsequently designated a permanent road (King's Highway) and widened to accommodate greater traffic. It is the major east-west roadway and the main route through the Township. It links local residents with Route 82 in the east and Route 10 in the west, traversing the Township in a slight southeasterly-northwesterly fashion.

Telegraph and Hill Roads also carry east-west traffic. Both roughly parallel Route 340, but are located in the northern part of the Township. Hill Road carries traffic to Route 10 from within West Caln and from adjacent Townships. Route 10 provides access to Route 340, Route 30 and the regional circulation network to the south.

Other roads carrying east-west traffic include Cedar Knoll, Cambridge and Coffroath Roads north of Route 340, and Sandy Hill, Beacon Light and Airport Roads south of Route 340. These roads are not considered main roads; most serve as links to larger roads within the network.

### **North-South Transportation Corridors**

Because most of the travel through Chester County is historically east-west oriented, the number of north-south routes is more limited. This phenomenon is particularly evident in West Caln Township. Cedar Knoll and Cambridge Roads are minor north-south routes. The major north-south route in western Chester County is Route 10, which traverses western West Caln Township and facilitates inter-county travel linking the counties to the north to Route 1 and Route 41 to the south. Route 10 intersects with Route 340 in the village of Compass near the Lancaster County border.

Sandy Hill, Bonsall, Wagontown and Old Wilmington Roads extend through the center of West Caln Township and are locally-oriented north-south routes. They primarily serve intra-Township travel. Martins Corner Road is a multi-directional road in that the name does not change as the direction changes; however, it is primarily a north-south route. The circulation network in and around the village of Martin's Corner has been strained recently by the construction of Hibernia reservoir and the creation of Chambers Lake.

Portions of several roads in the Township provide north-south access, but indirectly. Segments of Wagontown, Hibernia, Creamery and Wilmington Roads are examples of other north-south oriented routes that carry traffic within the Township and distribute vehicles to the primary corridors.

A description of the roads in West Caln Township is found in **Table 6-2**.

TABLE 6-2

**ROAD DESCRIPTIONS**  
**Information Pertaining to State and Former State Roads in West Caln Township**

ROAD NAME	Route #	Current Functional Class.	Cartway Width	Year Resurfaced	No. Lanes	% Trucks (1996)
Route 340 (King's Hwy.)	SR. 0340	Major Collector	18-21'	1992 (Partial)	2	9-18
Route 10 (Compass Rd.)	SR. 0010	Minor Arterial	22'	No Info.	2	11
Old Wilmington Rd.	SR. 4001	Minor Collector	20'	No Info.	2	9
Wagontown Rd.	TR. 569	Local	18'	1994	2	9
Cedar Knoll Rd.	(TBA) 4005	Local	14-20'	1997	2	9
Birdell/ Martins Corner Rd.	TR. 568	Local	16'	1994	2	9

Source: Pennsylvania Department of Transportation  
 Roadway Management Information System (1996)

### **Highway Interchanges**

There are no interchanges within the boundaries of West Caln. The circulation network in the Township is greatly impacted by the proximity of two interchanges located just outside the boundaries that facilitate access to the local network. Those Route 30 interchanges that directly affect West Caln Township are located at Route 82 southeast of the Township and Airport Road south of the southern boundary. The Route 30 and Airport Road interchange is located adjacent to the Highlands Corporate Center, a relatively new industrial park situated at the border between Valley and West Caln Townships. The Highlands Corporate Center is approximately 140 acres which, once built out, will create a significant employment center.

### **EXISTING FUNCTIONAL CLASSIFICATION**

Functional classification is the method of categorizing roads by the purpose they serve in order to provide for proper transportation planning. Roads vary as to their function and intent, and that purpose should dictate the standards to which a road is either initially built, or improved. The functional classification assists in determining the best location for development in light of the circulation needs of current and future residents. It also allows municipal officials to prioritize road improvements, thereby promoting the effective use of tax dollars.

Road function in West Caln is based on an analysis of six factors.

- Traffic volumes
- Existing design of roadways or their ability to carry higher volumes
- Relationship to other roads in terms of the availability of another, more appropriate route
- Directness of route between major traffic generators
- Perceived average trip length
- Accommodation of accessibility or mobility

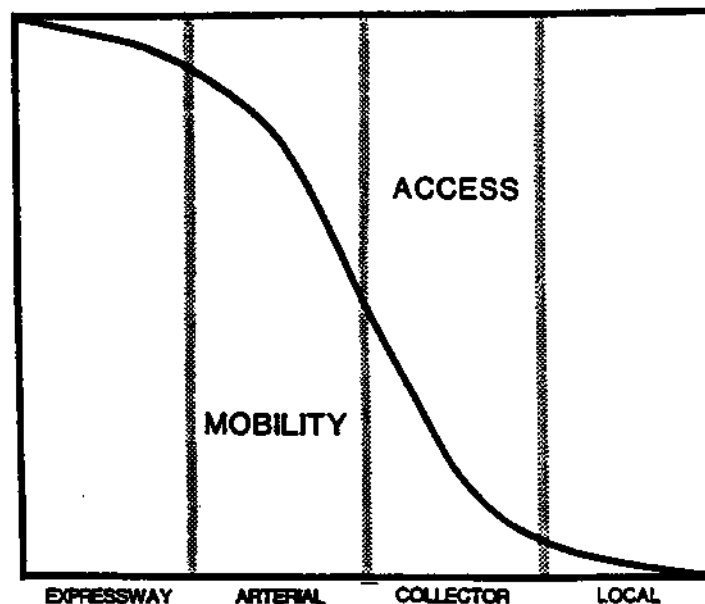
One of the most important concepts in terms of functional classification is that of mobility versus access. Mobility is defined as the ability by which a road can move traffic between points, while access is defined as the ease by which traffic can enter and exit roadways. Traffic can move more efficiently and safely at higher speeds if access is limited, and conversely, traffic should move slower on roads that have many access points. These two measures inherently conflict, illustrating the need to identify the main purpose of each road. Identifying the function of the road in terms of access and mobility helps determine the types and intensity of land uses for those parcels adjacent to the road and leads to identification of the functional classification. This relationship is illustrated in **Figure 6-1**.

**FIGURE 6-1**

**RELATIONSHIP OF MOBILITY TO ACCESS**

**FIGURE 6-1**

**RELATIONSHIP OF MOBILITY TO ACCESS**



Source: Highway Needs Study, Chester County Planning Commission (1990)

Roads are generally classified as expressways, arterials, collectors or local roads. Depending on the degree to which a road meets the criteria, another level may be warranted in the classification system such as "major" or "minor". The Chester County Circulation Handbook (1994), suggests an "urban" and "rural" standard be considered as well. A description of the general classifications as described in the Highway Needs Study (1990) is included in the following summary. There is some discrepancy between sources regarding the existing functional classification, mainly due to the point in time that the determinations were made. These discrepancies will be addressed in the Transportation and Circulation Plan. The functional classifications and volumes of West Caln roadways are identified on **Map 6-1**.

**Expressways:** These roads serve the heaviest volumes of traffic and have limited access to allow for higher speeds. Average daily trips range between 10,000 and 100,000. Expressways serve higher average trip lengths focusing on regional and interstate traffic. Expressways facilitate truck transport by providing the optimum conditions for truck traffic. The Route 30 By-Pass is the only expressway that traverses West Caln Township.

**Principal Arterials:** These roads serve heavy volumes of traffic often ranging between 10,000 and 40,000 trips per day. They provide a high degree of mobility, but offer more access than expressways. Principal arterials link urban centers and usually consist of more than two lanes. There are no principal arterials traversing West Caln Township.

**Minor Arterials:** Arterials of this type also emphasize mobility and serve to link urban and rural centers, but their focus is more regional. They provide for traffic ranging from 5,000 to 15,000 trips per day with higher access than principal arterials, but still some access control. The 1974 West Caln Comprehensive Plan classifies Route 10 as an arterial; Chester County's Highway Needs Study classifies Route 10 as a major collector. This discrepancy will be addressed in the transportation plan element by a future functional classification recommendation.

**Major Collector:** Its purpose is to collect traffic and move it to the arterials. A major collector links residential and commercial areas by "collecting" traffic from residential areas and moving it to arterials. This road classification accommodates traffic averaging 3,000 to 8,000 trips per day. The West Caln Comprehensive Plan (1974) classifies Route 340 as an important collector; the Highway Needs Study (1990) classifies Route 340 as a minor collector.

**Minor Collector:** Minor collectors serve the same function as major collector, but on a smaller scale. These serve traffic in the range of 1,000 to 3,000 trips per day, collecting traffic from various access points mainly in residential areas, and distributing it to other residential and commercial centers. Minor collectors serve mainly local traffic. West Caln's 1974 Comprehensive Plan, although it does not delineate between major and minor collectors in the existing functional classification, appears to indicate Old Wilmington, Wagontown, Creamery, Martins Corner, Cedar Knoll, Water Works, Sandy Hill, and Airport Roads as minor collectors. The Highway Needs Study indicates Old Wilmington Road (along with Route 340) as a minor collector.

**Local:** Local roads focus on access, and often help to define the municipality's unique character. Roads in the neighborhoods are considered local and provide direct residential access. They are intended for very short distance travel and usually do not carry through trips. The 1974 Comprehensive Plan says that those roads not specifically designated as arterials or collectors should be considered local; the Highway Needs Study does not map local roads.

## TRAFFIC VOLUME

Traffic volumes are determined through traffic counts taken at specific locations within a transportation corridor. The volume is usually portrayed in terms of average annual daily traffic (AADT). This represents the average count for a 24 hour period, factoring in any fluctuations due to the day of the week or month of the year. The AADT is an important factor that, in conjunction with the previous factors outlined, helps in determining the functional classification of a road. Comparing traffic volumes from different time periods helps to illustrate how growth is affecting the circulation patterns.

# Map 6-1

## Functional Class and Volumes

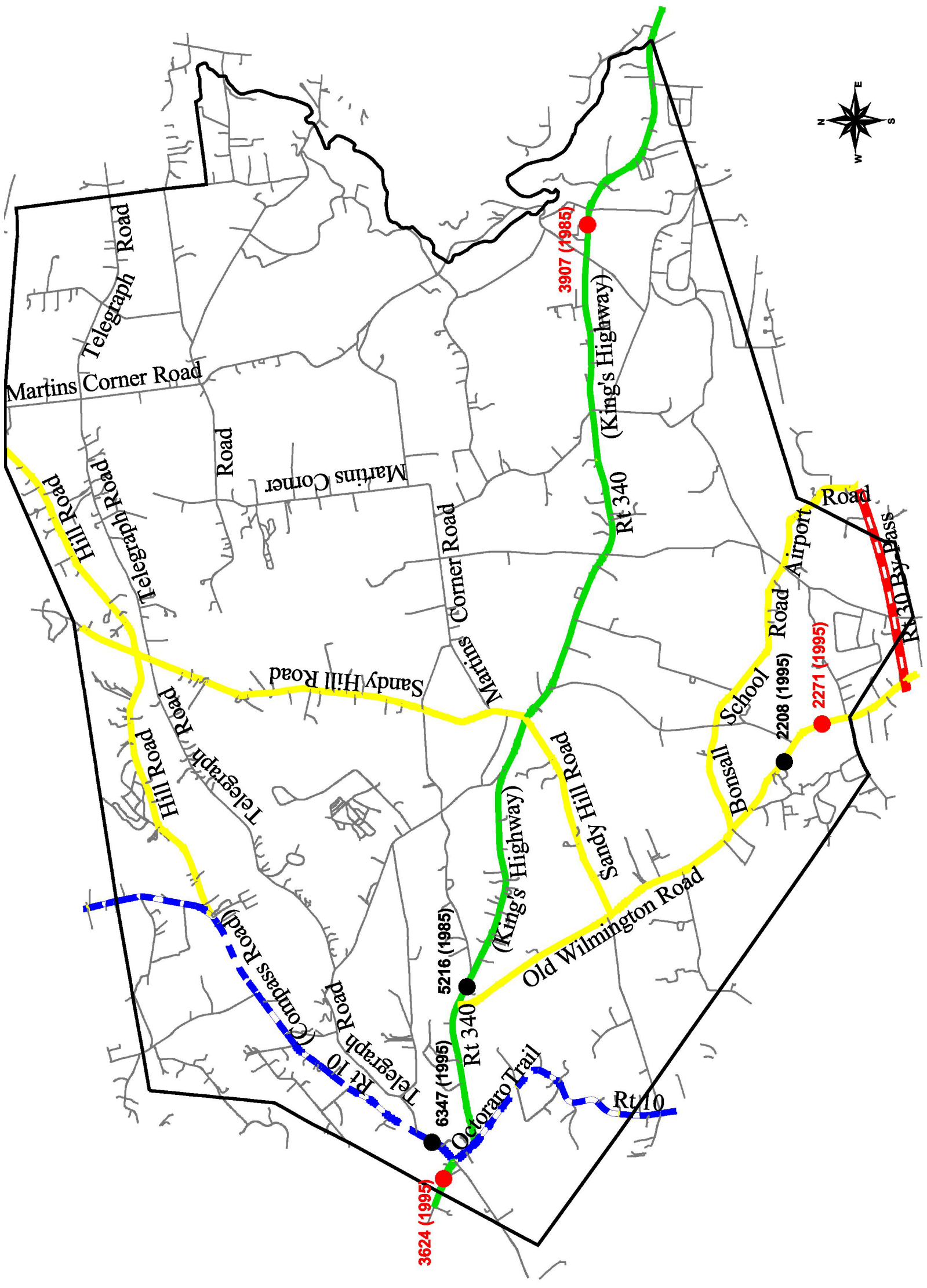
- Township Border
- Road Functional Classifications**
- Expressway
- Local
- Major Collector
- Minor Arterial
- Minor Collector
- PennDOT Data
- DVRPC Data

Data Source:  
 Pennsylvania Department of Transportation Roadway Management Information Systems, 1996; Delaware Valley Regional Planning Commission, Traffic Court Database, 1996.

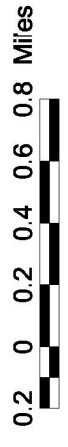
Material used in the preparation of this map has been interpreted by Chester County Planning Commission staff from preliminary data sources. The material has not been processed for quality control and is only used for draft mapping purposes. The planimetric and cadastral data on this map cannot be used for any other purpose without the express approval of the County of Chester.

**WEST CALN TOWNSHIP**  
 Chester County, Pennsylvania

Comprehensive Plan



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Information available on traffic volumes is important in determining the potential for capacity problems. Roads that are not used for the purpose for which they were intended can experience capacity problems. This is particularly evident in areas experiencing a significant amount of new development without concurrent upgrades in the transportation corridors. Capacity problems become particularly evident when the number of lanes are reduced and traffic is funneled from a roadway with a higher number of lanes to one with a lower number of lanes.

Although West Caln is sparsely populated at only 282 people per square mile, capacity on Township roads is influenced by traffic originating from outside the borders. The two roadways most likely to experience capacity problems are Route 340 and Route 10. Both of these roads are carrying local as well as regional traffic, and increasingly higher volumes. No significant improvements have been made to these roadways in recent years. Traffic volumes, highly indicative of capacity problems, are beginning to increase on the other roads as well.

Traffic volume is monitored by PennDOT, the Delaware Valley Regional Planning Commission (DVRPC) and Chester County. Current PennDOT information is available through PennDOT's Roadway Management Information System, which maintains current information on traffic volumes as well as on road characteristics. This information assists counties and municipalities in their transportation planning efforts, particularly in terms of road improvement programs.

The Delaware Valley Regional Planning Commission, as well as Chester County Planning Commission, undertake traffic counts to help plan for local transportation projects. Traffic studies prepared by consultants for individual developments are also sources for current traffic volumes.

## ROADWAY CONDITIONS

An inventory of roadway conditions is necessary in order to identify problems within the circulation system and to address these problems as appropriate. Roadway conditions are generally evaluated from four perspectives.

- Safety
- Access
- Interchange
- Corridor Segment

Road safety information for roads in West Caln Township is shown on **Map 6-2**. The roadway conditions are summarized as follows:

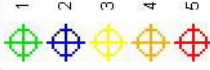
**Safety:** Safety concerns are evident at those locations within the circulation system that may pose hazards due to poor road alignments, limited sight distance, design or structural problems, lack of road shoulders or obstacles near the roadway. These all can create hazardous conditions which can slow traffic and cause congestion, potentially leading to accidents.

One of the problem areas in the Township is in the village of Compass where Route 10 and Route 340 (King's Highway) intersect, and are poorly aligned. This intersection also sees a variety of turning movements within a relatively short road segment.

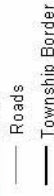
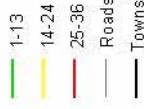
# Map 6-2

## Road Safety Information

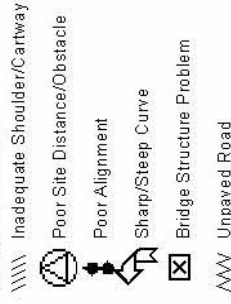
### Accident Points



### Mid-Block Accidents



### Roadway Conditions

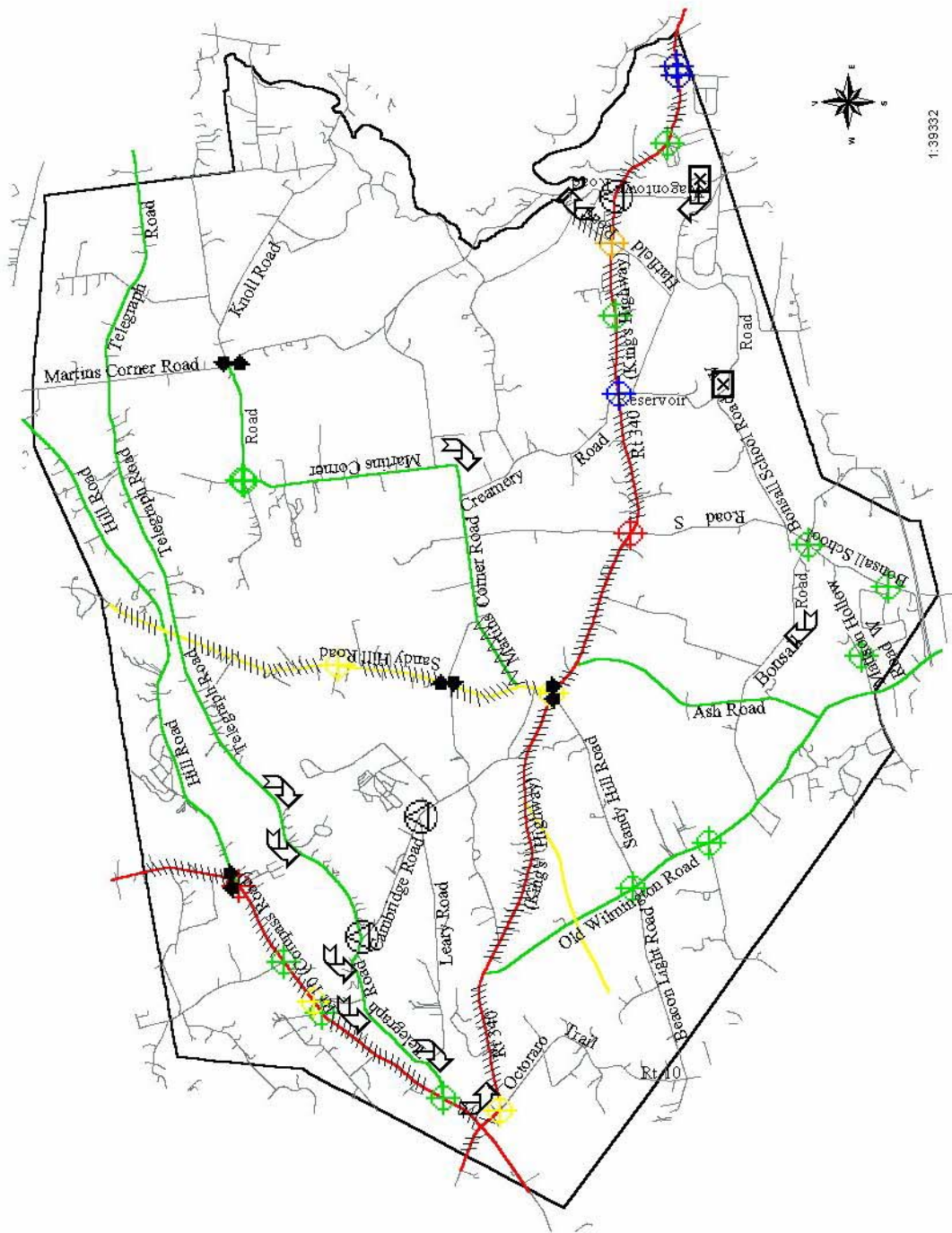


Data Source:  
 Pennsylvania Department of Transportation Bureau of Highway  
 Safety and Traffic Engineering Accident Records System.

Material used in preparation of this map has been incorporated by Chester County Planning  
 Commission into the Comprehensive Plan. The map is for informational purposes only.  
 The map is not intended to be used for any other purpose without the  
 approval of the Chester County Planning Commission.

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 Chester County, Pennsylvania

Comprehensive Plan



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Topographical conditions in the northern reaches of the Township can also result in safety problems. Steep roads, sharp curves, and heavy vegetation adjacent to the cartway are all potential safety concerns. This is particularly a concern in instances where the corridors are shared by automobile traffic and buggy traffic generated by the Amish residents.

**Access:** Safety concerns can arise on a roadway when there are too many access points to facilitate safe travel. Access is a particular problem when the road frontage has been subdivided into numerous individual lots all with driveways accessing the road.

In West Caln, access problems are most evident within the Route 340 corridor. This road is functioning more and more as a minor arterial, yet at the same time, lots are being developed on the road frontage, creating more and more access points. This same phenomenon is occurring within other corridors in the Township, but is most problematic along Route 340 due to the road function.

**Interchanges:** Interchanges that are not designed to accommodate the traffic volumes can significantly hinder movement on adjacent roads. The only highway passing through the Townships is Route 30, and although none of the Route 30 interchanges are located within the boundaries of West Caln, their proximity does impact the Township's circulation system.

**Corridor Segment:** Corridor segment problems are usually found in the more densely developed areas when congestion, access and safety issues are all present. Corridor segment problems can include those roads that have not been adequately maintained and exhibit structural problems. Because of a number of access and safety problems, Route 340 is a key corridor requiring attention. Changes in circulation due to the Route 30 by-pass have altered traffic patterns on Route 10, and further review of this corridor may also be appropriate.

**Table 6-3** is a summary of road conditions in West Caln Township based on 1997 field observation and input from the West Caln Comprehensive Plan Task Force.

**TABLE 6-3**  
**ROAD CONDITIONS (1997)**  
**Design Limitations Associated with Major Roads in West Caln Township**

ROAD NAME	LOCATION	CONDITION
Route 340	Entire corridor	Inadequate shoulders
Route 340	Intersection with Wagontown Rd.	Poor sight distance
Route 340	Intersection with Sandy Hill Rd.	Poor alignment
Route 340	Intersection with Route 10	Sharp, steep curve causing sight distance problem
Wagontown Rd.	North of Water Works Rd.	Sharp, steep curve
Hatfield Rd.	North of Route 340	Narrow, curving cartway
Reservoir Rd.	at Neal Rd.	One lane bridge
Route 10	at Hill Rd.	Poor alignment, obstacle
Route 10	North half of corridor	Inadequate shoulders
Leary Rd.	at Cambridge Rd.	Poor sight distance
Telegraph Rd.	West half of corridor	Steep curves
Telegraph Rd.	at Cambridge Rd.	Poor sight distance
Martins Corner Rd.	at Cedar Knoll Rd.	Poor alignment
Martins Corner Rd.	South of Wagontown Rd.	Sharp curve
Martins Corner Rd.	Between Sandy Hill and Coffroath Rds.	Unpaved road
Sandy Hill Rd.	at Coffroath Rd.	Poor alignment
Sandy Hill Rd.	North of Route 340	Inadequate road shoulders
Hatfield Rd.	at Wagontown Rd.	Sharp curves
Airport Rd.	West of S. Bonsall School Rd.	Sharp curves, obstacles

Source: West Caln Township Comprehensive Plan Task Force  
 Chester County Planning Commission staff (Field Survey-1997)

#### ACCIDENT DATA

One of the most significant indicators of road safety is the accident data. Although accidents can be caused by any number of factors, a large number of accidents at a particular location could be related to physical characteristics of the road at a particular point. Poorly aligned intersections, inadequate road signage, capacity and access problems could all influence the accident potential.

The location of accidents in West Caln Township, compiled by PennDOT, is shown on **Map 6-2** along with the road conditions. This information is limited to data on reported accidents which are those that involve a fatality or major injury or require that a vehicle be towed. The accident reports received from PennDOT include only those accidents reported to the police and in which a report was filed.

The majority of the reported accidents occurred along the corridors of Routes 340 (King's Highway) and Route 10. Accidents occurring along these routes may be expected due to the amount of traffic coupled with the amount of development that is established along the corridors.

The Sandy Hill Road corridor has been an area of many traffic accidents in West Caln Township. There are two specific areas along Sandy Hill Road where a large number of accidents have occurred. The first is the section of Sandy Hill Road between Telegraph Road and Jelke Road. The second area of Sandy Hill Road that has experienced a large number of accidents is the segment between Coffroath Road and Route 340.

### **ALTERNATIVE FORMS OF TRANSPORTATION**

Alternative transportation facilities include railroad stations, bus stations, commuter lots and airports. It can also include non-motorized facilities such as sidewalks, trails and bikeways.

There are no alternative transportation facilities located within the boundaries of West Caln Township with the exception of a limited number of trails in Hibernia County Park. However, West Caln Township is most certainly impacted by alternative transportation facilities located in adjacent municipalities. If a facility such as a railroad station or bus station is located near the Township, but just outside the border, the need is met without significant cost or revenue to the Township. However, there may be an increase in traffic on the local road system if certain roads are used to access regional or alternative facilities.

Air transportation is available through the Chester County Airport (G.O. Carlson Airport). It is located in adjacent Valley Township and can be accessed off Route 340 by Airport Road, Wagontown Road, and to a lesser extent, Country Club Road. The airport is owned by Chester County and operated by the Chester County Airport Authority. It was expanded in recent years to provide a higher level of service to small, mainly commuter and corporate aircraft. Additionally, a private airstrip is located in the western part of the Township.

Commuter rail travel is available through the AMTRAK commuter rail system in Coatesville. This same line was used by SEPTA; however, service to Coatesville has been eliminated. Rail freight service is available through Conrail and via a local system, the Brandywine Valley Railroad, in the Coatesville area. It links to the Octorara line and primarily serves commercial and industrial needs. A right-of-way formerly owned by Conrail and known historically as the Wilmington-Northern line lies adjacent to West Caln, paralleling the Brandywine River in West Brandywine Township. This rail line was abandoned in 1984. It has been proposed as a multi-purpose trail corridor linking the greater Coatesville area with Hibernia Park, Struble Lake and French Creek State Park. The proposal was the focus of the Hibernia Trail Task Force and the findings are outlined in its report completed in 1991.

There is no pedestrian circulation system in West Caln Township. No formal trail system exists outside of Hibernia County Park although many of the scenic roads in the Township are now being used extensively by bicyclists. Because many of these roads do not have adequate shoulders and adequate road signage safety concerns are raised.

**PLANNING IMPLICATIONS**

- Population growth will continue to put pressure on the existing circulation network which will require the Township to plan for increased road maintenance and improvements.
- New development in the northern half of the Township is resulting in increased traffic on roads that have traditionally been used mainly for agricultural purposes. As a result, these roads may require improvements.
- Frontage development, particularly on Route 340 (King's Highway), is significantly reducing mobility on this important arterial. Access management techniques should be used to reduce negative impacts.
- West Caln has a high number of road miles that are in relatively good condition. Continual monitoring is required, however, to ensure that they do not deteriorate.
- The functional classification of several key roads must be reevaluated to ensure that they are improved to the standards appropriate for the type of traffic they carry.

## Chapter Seven

### LAND USE INVENTORY

This chapter describes the current land uses, identifies influencing factors, and maps the land use patterns. Comparing past development patterns with current land uses helps to identify trends which can then be used to plan for the future. The information obtained through the analysis of the existing land use will be used to develop the future land use plan and map. Specific elements discussed in this chapter are as follows:

#### CURRENT LAND USE

Land use in West Caln Township is gradually changing from agricultural uses and open space to low density residential uses. West Caln Township is one of the largest municipalities in the County and despite the increased residential development, it still has a large percent of land in active agricultural uses and a significant percentage in open space. New development over the past two decades has been mainly in the form of single-family detached residential units on larger lots. There has been little in the way of new commercial or industrial development to support the increased population to date.

**Table 7-1** presents the current land use in acres and gives the percentage of land in each use. This information was obtained through a review of current tax maps, aerial photographs and field survey. A description of each land use category follows the table. **Map 7-1** shows the location of the various land uses in the Township.

**TABLE 7-1**

**EXISTING LAND USE IN WEST CALN TOWNSHIP (1997)**  
**Land Use in Acreage and as a Percent of the Total Land Area**

LAND USE CATEGORY	ACRES	% OF LAND IN TOWNSHIP
Single-Family Residential (Low-Density)	2725.36 Acres	19.43%
Single-Family Residential (Medium-Density)	544.84 Acres	3.88%
Multi-Family/Mobile Home Parks (High-Density)	171.37 Acres	1.22%
Commercial/Office	13.83 Acres	.10%
Community Service/Facilities	111.65 Acres	.80%
Industrial	10.39 Acres	.07%
Recreation (Active)	341.74 Acres	2.44%
Recreation (Passive)	668.28 Acres	4.77%
Agriculture	5491.63 Acres	39.16%
Open Space	3614.88 Acres	25.78%
Utilities/Transportation	330.33 Acres	2.36%
<b>TOTAL</b>	<b>14,024.30 Acres</b>	<b>100%</b>

Source: Chester County Tax Parcel Maps (1996)  
 Aerial Photography (1995)  
 Field Survey (1997)

**Single-Family Detached Residential (Low Density)****2725.36 Acres 19.43 percent of Land**

Low density residential uses are characterized, for purposes of this inventory, as single-family residential uses found on lots of one acre or more. These units are generally served by on-lot wells and individual sewage disposal systems.

Low density residential development has occurred throughout the Township in standard subdivisions, along private drives and on single lots split from larger parcels (usually parcels used for agricultural purposes). As indicated by Map 7-1, a large percentage of the amount of low-density residential development has been occurring along the frontage of major Township thoroughfares such as King's Highway, Telegraph Road and Old Wilmington Road.

**Single-Family Detached Residential (Medium Density)****544.84 Acres 3.88 percent of Land**

Medium density residential uses are characterized for this inventory, as single and multi-family residential uses found on lots of less than one acre. These uses may be served by on-lot wells and individual sewage disposal systems, by community systems, or by public water and/or sewer. Access to public water and sewer facilities is very limited in the Township and currently only available in the southeast quadrant. Water lines have been extended through the south-central section of the Township in response to the contamination caused by the superfund sites. Public water serves individual residences along Airport and Ash Roads, Kings Highway and Woodland Drive, and Water Works Road. It also serves three subdivisions; Country Ridge Estates, Sunset Hills and a third development. Country Ridge Estates is also served by public sewer.

**Multi-Family and Mobile Home Parks****171.37 Acres 1.22 percent of Land**

Although mobile home parks comprise a small percentage of land area they do represent a significant percentage of the population because of the higher density. These parks are served by private wells and community sewage disposal systems. There are seven mobile home parks in West Caln Township.

Hideaway Mobile Home Park  
 High Point Estates  
 Imperial Mobile Home Park  
 Perry Phillips Mobile Home Park  
 Shady Oaks Terrace  
 Spring Hill Estates  
 Taggarts Mobile Home Park

**Commercial/Office****13.83 Acres .10 percent of Land**

Commercial uses are very limited because the retail needs of residents are satisfied elsewhere. Those commercial uses that are present in the Township consist of service/convenience stations, automobile repair garages, small restaurants/stores, horticultural sales and equipment sales. Many of the commercial uses in West Caln Township are accessory.

Most of the commercial uses are located along the major roadways or at larger intersections. Although the pattern of commercial uses is very scattered, there is a minor concentration of three sites in the village of Compass at the intersection of Kings Highway and Route 10.

**Community Service****111.65 Acres .80 percent of Land**

Community services include public facilities and institutions such as the West Caln Township municipal buildings, the fire company stations, the Kings Highway Elementary School and the religious institutions. These facilities are located throughout the Township and are not concentrated in any one particular location.

# Map 7-1

## Existing Land Use

- Road Network
  - Township Border
- Land Use Categories**
- Low Density Residential
  - Medium Density Residential
  - High Density Residential
  - Commercial
  - Community Facility
  - Industrial
  - Active Recreation
  - Passive Recreation
  - Agriculture
  - Utilities
  - Vacant

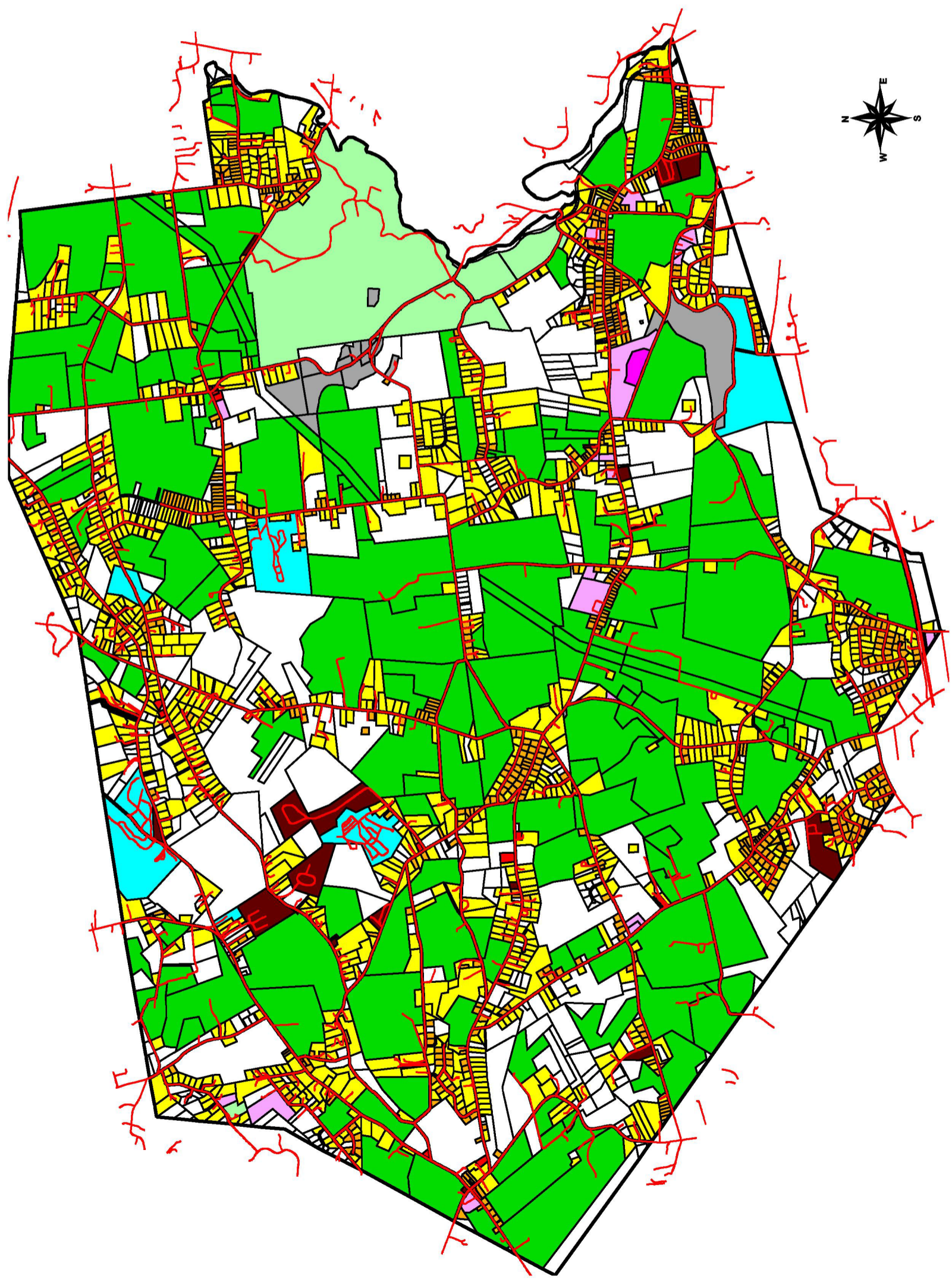
**Data Source:**  
 West Caln Township and CCPC Staff interpretation of  
 County Tax Assessment information, 1997.

Material used in the preparation of this map has been interpreted by Chester County Planning Commission staff from preliminary data sources. The material has not been processed for quality control and is only used for draft mapping purposes. The planimetric and cadastral data on this map cannot be used for any other purpose without the express approval of the County of Chester.

**WEST CALN TOWNSHIP**  
 Chester County, Pennsylvania

**Comprehensive Plan**

**GIS**  
 CHESTER COUNTY PLANNING COMMISSION



1:39322

0.3 0 0.3 0.6 0.9 1.2 Miles

**Industrial****10.39 Acres .07 percent of Land**

LGI Industries is the only industrial facility in West Caln Township. It is located on Waterworks Road in the southeast quadrant of the Township. This company specializes in the production of equipment and machinery for the paper mill industry.

**Recreation (Active)****341.74 Acres 2.44 percent of Land**

Active recreational uses in West Caln consist mainly of private recreational facilities such as campgrounds, golf courses and sports clubs. Together these uses comprise 240 acres and 1.72 percent of the land in the Township. These uses include facilities such as the Honey Brook Rod and Gun Club, the West Caln Sportsmen's Club, the Coatesville Country Club and the All Seasons Resort.

**Recreation (Passive)****668.28 Acres 4.77 percent of Land**

The passive recreational uses comprise a large land area, but only consist of two sites, the Hibernia County Park and Hibernia-Hatfield Historic District located along the eastern boundary, and a Township-owned community park located in central West Caln Township.

**Agriculture****5491.63 Acres 39.16 percent of Land**

Land in active agricultural production comprises over 40 percent of the land area in West Caln Township. Farms in West Caln Township range in size with most operated by the owner of the land. Crops produced in the Township include corn, alfalfa and soybeans. Many of the farms are owned by Amish and Mennonite families who also participate in dairy farming.

**Open/Vacant****3614.88 Acres 25.78 percent of Land**

A large amount of land in West Caln Township is in open space or considered vacant. Some of the open space is due to development constraints posed by woodlands, steep slopes and flood plains. Other areas are agricultural lands that are no longer farmed. Since the zoning is such that almost the entire Township may be developed for residential purposes, all agricultural and open space should be considered developable for planning purposes.

**Utilities/Transportation****330.33 Acres 2.36 percent of Land**

Several parcels of land in the Township are owned by utility companies. A Pennsylvania Electric Company (PECO) utility corridor runs through the Township from northeast to south-central. The corridor contains overhead lines and the underlying land is open space. The City of Coatesville Water Authority owns property, including a water reservoir, in the southeast quadrant. The remnants of a railroad line parallels the eastern boundary of the Township; however, the line is abandoned and has been considered for conversion to a trail.

**TRENDS IN LAND USE PATTERNS**

Comparing past land use patterns with current land use patterns helps to identify development trends. These trends are important in determining projected needs and planning for future development. The following analysis uses the land use survey included in the West Caln Township 1974 Comprehensive Plan and compares the results of that survey to the current land use patterns.



**Residential**

The land use survey contained in the 1974 Comprehensive Plan indicated that nearly 100 percent of the developed land in the Township (excluding farmhouses) was in residential use. The areas most developed at the time of the survey were the southeast section of the Township where lot sizes were somewhat smaller than those found in other areas. New development was occurring; however no distinct pattern was evident. The development of the road frontages, particularly along Kings Highway, was recognized as being a negative trend, one that could very significantly affect the efficiency of transportation routes throughout the Township.

Some minor areas of housing concentrations were identified near Martin's Corner, near Phillipsville, along Old Wilmington Road and in the area north of Hibernia Park. Mobile homes were becoming more commonplace and were found on individual lots located throughout the western part of the Township. Mobile home parks were not referenced.

The general trend, as reported by the survey, was that development was proceeding from the southeast toward the north and the west, with lot sizes gradually increasing. Subdivision development was minimal with most new residences being constructed along road frontages.

In comparing the 1974 land use survey with existing land use patterns, the same trends are still very evident. Residential development is primarily single-family detached housing, and although focused in the southeast, it has occurred in every part of the Township. Lot sizes overall have increased. Subdivision development has also increased, as has development along private roads. Mobile homes on individual lots are still a common form of housing, and several mobile home parks have developed over the past two decades.

The development of houses directly on the roads is still occurring at a high rate, and most major roads in the Township have frontage development which hinders access and creates safety problems. Construction on private roads does somewhat consolidate the number of driveways directly accessing major roads, but the overall problem remains.

Over the last two decades, no clear pattern of residential development has emerged except for the continuation of some level of concentration in the southeast section. Despite the presence of rural centers such as Martins Corner, Phillipsville and Compass, new residential development has not occurred in or around those focal points. This can be attributed somewhat to the current zoning which allows for residential development in virtually any area of the Township. The only constraints to large-lot residential development are those posed by natural features such as steep slopes, floodplains and soils. The availability of public water and sewer in the southeast and south-central sections make these areas somewhat more attractive for development because the zoning ordinance allows for higher density development if public water and sewer are available.

**Commercial and Industrial**

The 1974 land use survey found very few commercial and industrial facilities in the Township. The commercial uses at that time were primarily gas stations, small stores and some minor specialty shops. Only one industrial facility had been developed, the Layton-Greenfield factory on Water Works Road. The commercial and industrial activity was scattered with no concentrations.

The current land use inventory shows a continuation of the trend identified in 1974. Few commercial and industrial facilities exist, and no concentration, other than a minor concentration in Compass, is evident. The desire to focus commercial development in the existing rural centers is evidenced by the Neighborhood Commercial Zoning District, which is designated in Compass and Wagontown. Commercial uses are the same type as they were in 1974, with most being gas or service stations, small stores and convenience stations. There has been no further development of industrial uses, with the Layton-Greenfield site, now referred to as LGI Industries, still the only industrial site in the municipality.

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### **Public and Semi-Public Uses**

The public uses in West Caln Township in 1974 consisted of the Hibernia County Park, the Hibernia-Hatfield historic site just south of Hibernia, the Kings Highway Elementary School and various municipal facilities. Semi-public uses included the churches, cemeteries and other recreational facilities.

The current land use inventory identifies these same uses. There has been little change in the number or intensity of these types of uses. Most of the facilities referenced have been in existence for some time and their locations have remained unchanged.

### **Utilities**

The 1974 land use survey reports a number of utility corridors located in West Caln Township. These consist of rights-of-way with underground pipes crossing the northern part of the Township, a PECO right-of-way with overhead lines extending through the central regions of the Township, and a Reading Railroad right-of-way.

The current land use inventory identifies the PECO right-of-way since the overhead lines visually impact the Township. The underground lines, although present, are not shown on the existing land use map because the land is used for other purposes.

The Coatesville Reservoir, owned and operated by the City of Coatesville Authority, is considered a utility because it is the source of drinking water for Coatesville and points beyond.

The Reading Railroad, located at the eastern boundary of the Township, is no longer functioning and efforts have been underway to convert the railbed to a trail.

### **Agriculture and Woodland**

Large amounts of active agricultural lands were reported by the 1974 land use survey . A full 48 percent of the land was identified as farmland at that time. Another 33 percent was reported as woodland. Most of the farms were large and generally located in the flat areas in the central region of the Township, and in the valleys formed by the hills. Those areas too wet or too steep to farm remained in wooded.

The current land use inventory continues to show large areas in active agricultural production; however, the farmland has dwindled from 48 percent to 40 percent. There are many residential developments now interspersed with the farms. The broad expanses of agricultural lands no longer exist and the pattern of farms is now much more scattered. Woodlands still remain because many of these areas are located on steep slopes or in floodplains, and thus serve as natural constraints to development.

## **PROPOSED DEVELOPMENT ACTIVITY**

The proposed development activity in terms of subdivision and land development applications is an important indicator of future growth. Even though many development proposals may never proceed to actual construction, the level of interest in future development, as well as the level of land speculation, can be learned by reviewing the number and type of proposals submitted. **Table 7-2** summarizes the number, types and acreage of the proposals forwarded to the Chester County Planning Commission for review in accordance with the Municipalities Planning Code. This information may be compared with the number of building permits issued to give a sense of how many proposals actually proceed to construction.

TABLE 7-2

**PROPOSED SUBDIVISION AND LAND DEVELOPMENT 1990 - 1996**  
**Type of Subdivision and Land Development Proposed in Units/Lots**

<b>Year</b>	<b>Total Acreage in Proposals</b>	<b>Residential/ Agricultural Units/Lots</b>	<b>Multi-Family/ Mobile Home Units/Lots</b>	<b>Commercial/ Industrial Units/Lots</b>	<b>Total Number Units/Lots</b>
1990	373	64	0	0	64
1991	535	78	12	2	92
1992	322	42	2	0	44
1993	612	79	1	0	79
1994	699	147	0	0	147
1995	412	70	0	1	71
1996	261	66	0	0	66
<b>TOTAL</b>	<b>3214</b>	<b>546</b>	<b>15</b>	<b>3</b>	<b>563</b>

Source: Chester County Act 247 Referrals Subdivisions, Land Development, and Zoning (1990-1996)

Between 1990 and 1996, 3,214 acres or 23 percent of the entire land area of West Caln Township has been proposed for some type of subdivision or land development activity. Between 1980 and 1990, 5,785 acres, or 41 percent of the Township was proposed for subdivision or other land development activity. These figures indicate a high level of interest in the development potential of the Township, a trend that, it appears, will continue into the near future.

### **Building Permits**

Although reviewing the amount and type of proposed subdivision and land development activity can provide insight into the amount of development pressure that a municipality is facing, the applications do not reflect actual construction. Construction activity is obtained from building permit data. The number of building permits issued by type from 1990 through 1996 is indicated in **Table 7-3**.

TABLE 7-3

**RESIDENTIAL BUILDING PERMITS BY UNIT TYPE 1990 - 1996**  
**Number of Building Permits Issued by Residential Type**

Year	Single Family	Apartments	Townhouses	Mobile Homes	Total
1990	48	0	0	23	71
1991	44	0	0	12	56
1992	45	0	0	10	55
1993	53	0	0	13	66
1994	58	0	0	8	66
1995	59	0	0	14	73
1996	40	0	0	11	51

Source: Residential Building Permits (Planning Data Sheet #50)  
 Chester County Planning Commission (1996)

The number of building permits issued has been fairly consistent since 1990, with permits for single family residential construction ranging from a low of 40 in 1996 to a high of 59 in 1995. The number of permits issued for mobile homes has also been fairly consistent and accounts for an average of 21 percent of the residential permits issued for the time period indicated.

### CURRENT LAND USE REGULATIONS

The manner in which the land develops is highly dependent on the land use regulations in place. West Caln Township adopted a comprehensive zoning ordinance in 1978 and a subdivision and land development ordinance in 1983. These ordinances were adopted to implement the 1974 comprehensive plan, creating an overall framework for land planning and development. The comprehensive plan set forth a vision that emphasized retention of the existing municipal character through the protection of natural resources, while also allowing for new development to occur.

The zoning ordinance contains one residential zoning district and allows for residential development to occur within that district at different densities based on the method of addressing water and sewer facilities. Lot sizes can range from one unit per 18,000 square feet (app. one-half acre) if public water and sewer is provided up to one unit per 60,000 square feet (app. one and one-half acres) if on-site facilities are used. Almost the entire Township is presently zoned for residential development, giving developers the opportunity to build in virtually any location within the density constraints outlined. Small neighborhood commercial districts are found in and around Wagontown and Compass, but the remainder of the land area, including the farms and farmland, allows for unrestricted residential development. The availability of water and sewer facilities in areas where new construction is to be concentrated encourages medium density development and reduces the potential for sprawl.

Provisions allowing for creativity in site design are included in the ordinance. Cluster provisions and lot averaging both provide for flexibility in subdivision layout. Cluster provisions are important to the conservation of open space and give the developer flexibility when important natural or historic features are located on the site. The West Caln ordinance requires a minimum of 40 percent open space and does not provide for any type of density bonus to encourage clustering. The Township may encourage cluster development by providing such a bonus. Lot averaging, also provided for through the West Caln zoning ordinance, allows for flexibility by allowing lot sizes within a development to vary from the minimum. These provisions have not yet been used in the Township, but could be encouraged in order to reduce sprawl development.

West Caln Township does not provide for an effective agricultural zoning district in its zoning regulations despite the fact that agriculture is still a significant land use. This type of zoning encourages the continuation of agricultural and farming activities and limits the subdivision of land zoned for agricultural purposes. There are many different approaches to agricultural zoning and district regulations could be tailored to meet the specific needs of West Caln Township. These regulations could also be used, in conjunction with other zoning provisions, to reduce the number of lots that directly access major roads.

### **PLANNING IMPLICATIONS**

- The amount and type of new development occurring in West Caln Township is changing the character of the municipality. Agricultural land is being converted mainly to large lot single-family residential development. Despite the desire to focus new construction in the southeast quadrant, this type of development is occurring throughout the Township. The Township needs to implement land use techniques that moderate sprawl development and focus growth in appropriate areas.
  - Prime agricultural soils, an important natural resource in West Caln Township, are being lost to new development. The Township should strive to protect this resource.
  - Residential development, as permitted by the R-1 Low Density Residential District, is occurring in all regions of the Township. Zoning of this type invites sprawl development and strains the existing circulation network. New construction should be focused in those areas best suited for such development.
  - Most of the new residential development utilizes on-site water and sewer facilities which, unless appropriately sited and continually monitored, could lead to broad contamination of groundwater supplies. Alternatives to on-site facilities should be considered.
  - Few commercial and industrial uses exist in the Township. Retail needs appear to be met in surrounding communities. Demand could, however, increase as the population increases. Infill development in the villages could meet new demand.
  - There are a large number of public and private recreational uses in the Township, dominated by Hibernia County Park. These uses help to protect natural features and conserve open space. Continuation of such uses should be supported.
  - Residential development is not concentrated in any one area. The Township should encourage the development of new housing in and around rural centers. This helps to maintain the existing character by limiting sprawl development.
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## Chapter Eight

### FUTURE LAND USE AND HOUSING PLAN

The future land use plan is the central element of the comprehensive plan which integrates the information from all the other plan elements. This chapter describes the Township's view of its future in terms of land use patterns and contains a future land use map that identifies the location of these land uses. The purpose of this plan is to serve as a guide for future land use decisions through the year 2020.

This chapter should be considered in conjunction with other plan elements since the recommendations listed are intended to complement those contained in the other chapters. Since the formation of the future land use plan is dependent on the conclusions reached in other plans elements, the recommendations are highly interrelated. This plan element consolidates the recommendations to a great extent and places the rationale behind each recommendation in the overall context of the future land use plan.

The recommendations that comprise this plan element address the following land use and housing goals and objectives:

#### **GOAL:**

**Preserve the rural character of the Township by protecting those natural, scenic and historic features that contribute to that unique character and the local quality of life.**

#### **OBJECTIVES:**

**Respect historic patterns of development when considering future land uses.**

**Evaluate the effectiveness of measures currently in place intended to protect natural and historic features, and consider new alternatives.**

**Identify and evaluate historic resources and investigate methods of encouraging their preservation through both public and private initiatives.**

**Consider environmental factors when determining future land uses.**

**Preserve natural resources, including woodlands, wetlands, steep slopes, and agricultural soils by limiting actions that could damage these resources.**

#### **GOAL:**

**Preserve agricultural land and prime soils, thereby supporting the agricultural industry in the Township.**

#### **OBJECTIVES:**

**Evaluate protective measures intended to conserve prime agricultural soils.**

**Consider the needs of the agricultural industry when making land use decisions.**

**Determine effective methods of reducing development pressure on agricultural lands.**

**GOAL:**

**Allow for orderly commercial and industrial development that meets the current and future needs of Township residents and contributes to the Township's economic vitality.**

**OBJECTIVES:**

**Ensure that new commercial and industrial development conforms to zoning regulations and that sites are developed in accordance with adopted regulations.**

**Focus commercial and industrial development in areas of the Township that are best able to accommodate such uses.**

**Encourage the type of commercial and industrial development that is most compatible with existing businesses in the Township and in the Region.**

**Require commercial and industrial sites to be developed in accordance with design standards that are intended to minimize the impact on surrounding land uses.**

**GOAL:**

**Provide for the development of a variety of housing types and encourage innovative and creative site design that seeks to retain the landscape's natural and historic features.**

**OBJECTIVES:**

**Focus new housing development in those areas best able to accommodate the development in terms of existing infrastructure.**

**Ensure that regulatory mechanisms are in place to protect natural and historic features existing on sites proposed for new development.**

**Provide for flexibility in land use ordinances and regulations to encourage innovative site design and alternatives to standard subdivisions.**

**Consider design standards for higher density housing that serve to blend new development into the existing built environment.**

**Work cooperatively with developers to evaluate design alternatives that serve to protect the natural, historic and scenic qualities of a site.**

**DEVELOPMENT OF THE LAND USE AND HOUSING PLAN**

The land use and housing plan for West Caln Township is the culmination of the comprehensive planning process. Its formation is directly influenced by the many factors described in this document, including the physical characteristics of the land and its ability to sustain new development, the road network and its adequacy in terms of supporting higher volumes of traffic, the type and extent of community services and facilities, and the anticipated increase in population. Each of these factors must not only be evaluated, but prioritized as well, since conflicts can and do occur. The goals and objectives specified at the outset of the planning process form the basis for determining these priorities. All of the factors are analyzed and evaluated as part of the planning process and the conclusions drawn form the basis for this chapter, the future land use plan.

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This plan consists of implementation recommendations as well as the future land use map. The recommendations offer guidance on how development should occur in order to accomplish the Township's goals and objectives and translate the future vision into reality, while the map graphically provides guidance to the municipality as to where new development should be located in light of natural, historical and environmental considerations, current and proposed infrastructure and existing land use.

### **Review of Previous Planning Documents**

The development of the future land use plan considered the policies contained in the Comprehensive Plan (1974), the Open Space, Recreation and Environmental Resources Plan (1995), and the Sewage Facilities Plan (1978). Although as indicated by the dates, the Comprehensive Plan and the Sewage Facilities Plan are not current, the Township recognizes these policies as reflecting current views. The overall land use philosophy has not changed dramatically in the past decade. Consequently these plans include many policies that the Township continues to view as valid, and thus should continue to serve as a land use planning foundation.

### **Comprehensive Plan (1974)**

Although adopted over twenty years ago, the Comprehensive Plan still provides very good guidance on land use decisions. Despite the fact that the Township has undergone many changes in the past two decades, and there are many new planning issues to be considered, the overriding policies on growth and land use remain current. The land use plan in this Comprehensive Plan focus on the following four objectives:

- A) To encourage the concentration of growth in areas where public facilities can be provided most economically and where the environmental impact of development is acceptable,
- B) To discourage present development of areas that cannot be connected easily to existing or proposed utility systems, especially areas that are naturally well suited to their present rural use,
- C) To control strictly or prohibit any development of land in any part of the Township when there would be a substantial hazard to the environment, and
- D) To allow for the harmonious completion of development in those areas that are already almost fully developed.

These objectives have served well as a guide for growth over the past two decades and the Township still adheres philosophically to these principles despite increasing development pressure, specifically the demand for new housing. One of the most significant outcomes of this early comprehensive planning process was the identification of a "development area" located in the southeast part of the Township in the Rock Run Creek drainage basin. The Comprehensive Plan encouraged development in this area because of its ability to physically accommodate housing, the availability of public sewers, the proximity to Coatesville, the access to the regional highway network and the absence of prime agricultural soils. This planning principle has been carried forward in the Comprehensive Plan Update.

The Comprehensive Plan stresses the importance of the Township's natural resources, specifically referencing the need to preserve prime agricultural soils. Several methods of accommodating new development while respecting natural features, including the use of cluster development and the transfer of development rights, are described in the plan. Several of these methods, though quite innovative at the time the plan was adopted, are now broadly recognized as effective planning practices. Retention of prime farmland has been carried forward in the 1997 Update.



**Open Space, Recreation and Environmental Resources Plan (1995)**

The Open Space Plan contains a thorough inventory of natural features, historic resources, and recreational opportunities. It includes a comprehensive set of recommendations for preserving open space, protecting the environment and enhancing recreation. This plan was developed by a Task Force which was guided by the results of a survey of Township residents undertaken in 1994.

The survey consisted of 23 questions, many of which were requested information on recreational needs, but several others focused on community values. There were 592 responses received for an overall return rate of approximately 33 percent. The community values questions revolved around such quality of life issues as the reasons for choosing to reside in West Caln, the community attributes considered most important, the type of future development desired and the planning issues perceived to be most critical. The survey results clearly indicated that residents most valued the Township's rural atmosphere and scenic beauty and were concerned with development pressure. There was support indicated for efforts to retain the Township's rural character through the preservation of natural resources, and preservation of farmland specifically. Residents were also concerned with conserving open space.

The Open Space Plan includes recommendations for protecting prime agricultural soils, preserving streams and stream corridors, managing stormwater and creating an historical commission. The Township has implemented many of the recommendations and is continuing to address the goals and objectives outlined. The policies contained in the Open Space Plan are consistent with those in the Comprehensive Plan (1974) and to a lesser extent the Sewage Facilities Plan, and greatly contribute to the policy basis of this land use plan.

**Sewage Facilities Plan (1978)**

The Township's Sewage Facilities Plan guides the type and location of sewage disposal facilities as new development occurs. At the time it was adopted, the document recognized that most development was dependent on individual on-lot systems, with the exception of the mobile home parks and campgrounds. The plan projected that this trend would continue and most new development would use on-lot systems as well.

Although on-lot systems were most common, the Sewage Facilities Plan recognized that future development in West Caln Township would vary, and no one approach could sufficiently address all needs. A notable exception was the method of addressing sewage disposal within the "development area". As described in the Comprehensive Plan, this area was proposed to be the focus for future development. Since on-lot systems were not feasible for projected development to occur at the densities proposed, the plan outlined alternatives including the use of public systems, spray irrigation, and package plants with stream discharge. Overall, the policies contained in this plan continue to be relevant and are consistent with the current land use philosophy.

The adoption of the Comprehensive Plan Update provides the foundation needed for updating the Sewage Facilities Plan. Since the policies contained in the Sewage Facilities Plan are generally consistent with current land use philosophy, these same general policies can be carried forward and used as the foundation for the update. Some modifications will be required since the strategies contained in the Sewage Facilities Plan Update must coordinate with the future land use categories contained in the Comprehensive Plan Update. The strategies must accommodate the type and density of the land uses proposed for each area in the Township as identified by the future land use plan. Even though the general policy of focusing new development in the growth area in order to reduce sprawl and conserve farmland remains in place, strategies must be tailored to the new land use categories adopted. The Sewage Facilities Plan Update should also incorporate recent advancements in technology that reduce the negative environmental impacts often associated with alternatives other than the use of public sewers.

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### **Chester County Comprehensive Policy Plan (1996)**

*Landscapes*, the Chester County Comprehensive Plan, is based upon reducing suburban sprawl by focusing new development to areas in which it can best be accommodated and by encouraging the revitalization of urban areas. The Plan stresses the importance of protecting natural and historic resources, and particularly emphasizes the need to preserve prime agricultural soils.

The County Plan contains goals and objectives intended to guide policy in the areas of land use, economic development, transportation, community facilities, utilities, housing, human services, public health, and planning and coordination. The policies outlined in *Landscapes* reflect many of the same policies that have guided West Caln over the past two decades. West Caln recognized that in order to preserve the natural and historic resources that give the Township its unique rural character, new development must be concentrated in an appropriate area. The Township identified a "development area" in the southeast quadrant in an overall effort to focus new construction and reduce development pressure throughout the remainder of the Township. This "development area" serves as the basis for a growth boundary, the method promoted by *Landscapes* to contain new construction and reduce development pressure in rural and natural regions. The policies recommended in the West Caln Comprehensive Plan Update are consistent with those contained in *Landscapes*.

### **Planning Programs of Surrounding Municipalities**

Coordinating land uses particularly along municipal boundaries is necessary to maximize resources and reduce the potential for land use conflicts. The planning programs of the City of Coatesville, and the Townships of West Brandywine, Honey Brook, West Sadsbury, Sadsbury, and Valley in Chester County, and Salisbury Township in Lancaster Township are summarized in Chapter 2. The land use relationships between West Caln Township and the surrounding municipalities, particularly at the borders, are important to coordinate. The municipalities that border West Caln Township are, with the exception of Coatesville, generally rural in nature with similar existing land uses. Most of the surrounding municipalities have a large percentage of their land area in active farms with primarily low density residential development supplemented by crossroads villages. This type of development is similar to that existing and planned for West Caln Township.

The exception to this generality is the City of Coatesville. Although the border that Coatesville shares with the Township is relatively undeveloped, the proximity of the City does influence development patterns. The "development area" identified by West Caln is located adjacent to the City of Coatesville; this allows for easy access to facilities and services. Due to Coatesville's proximity to the development area in West Caln, public water and sewer is available to service new housing in this area.

Valley Township borders the southern boundary of West Caln near the Route 30 By-Pass corridor. Valley has zoned for light industrial uses along Route 30, providing the opportunity for West Caln to plan for light industrial uses adjacent to the existing industrial park without substantially conflicting with other land uses.

Once completed, the draft Comprehensive Plan Update is submitted to each of the surrounding municipalities for review and comment. The Pennsylvania Municipalities Planning Code requires that contiguous municipalities, as well as the County and the School District, be provided 45 days in which to comment on the draft plan. It further stipulates that these comments be considered by the municipality before the Update is formally adopted.

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## **EXISTING LAND USE PATTERN**

### **Historic Settlement**

A major part of planning for future land use is recognizing the existing land uses and understanding why the pattern developed in the way that it did. The type and location of natural resources is often considered the most influential factor in settlement patterns because of early settlers' dependence on these resources, especially water supplies. The Township has several environmental features that influenced early settlement, probably the most significant of which is the West Brandywine Creek. This creek traverses the eastern half of the Township, drawing from headwaters located in the northeast and north-central region. This creek was an important water source for the native people and later for the Europeans. As industry developed, it became an important power source as well. The Hibernia Park and Hibernia-Hatfield Historic District commemorate the importance of the Creek.

### **Villages**

There are three "villages" in the Township with historical roots: Compass, Martin's Corner and Wagontown. Each are quite different with unique qualities. The village of Compass is situated at the crossroad of King's Highway and Route 10. The land uses in this village are mainly residential with some commercial. It also contains several important historic sites, the School House Inn and St. Johns Church and cemetery. Because this intersection is important with both roads being heavily traveled, additional commercial uses may be viable. This village serves as the western "entrance" to the Township. Martin's Corner is located in the northeast part of the Township. This village contains the Martin's Corner Fire Company as well as residential uses. Wagontown, located on King's Highway near the intersection of Wagontown Road, is the largest of the three, and consists mainly of residential uses, but also includes the Wagontown post office, Wagontown Fire Company and related recreational facilities, the Wagontown Union Chapel and two commercial uses. This is essentially the southern "entrance" to the County Park as well as the Township in general.

### **Agricultural Uses**

Another important resource that influenced historic land use patterns is the soil. West Caln Township has an abundance of fertile agricultural soils, and considering the early settlers dependence on agriculture, small farms quickly developed. The rolling topography of the central region proved quite conducive to farming, and active farms still dominate the Township. Topography also affects conversion of land to farms, and thus the Barren Hills in the north and the State Hills in the southwest remain wooded. The agricultural industry in the Township remains relatively strong, as evidenced by the large tracts of land still devoted to farming and the Agricultural Security Areas in place.

### **Recreational Uses**

The natural resources combined with the scenic qualities of the Township were responsible for the more recent development of recreational land uses. Hibernia County Park and Hibernia-Hatfield Historic District, located along the Brandywine Creek, attract visitors from all over the County. The addition of the new reservoir, Chambers Lake, will increase recreational opportunities in this area and consequently will increase visitation as well. Campgrounds in the north-central region, as well as sportsman clubs, continue to be popular.

### **Transportation Network**

The location of early roads also influenced development patterns. This network largely evolved from the trail system developed by the native people. King's Highway (Route 340) originated as a trail which, during colonial times, developed into the primary route between Lancaster and Philadelphia. Consequently, early development along this route catered to travelers and many of the inns, taverns and other uses are still visible and recognized as important historic resources. Development on the road frontage, particularly along these early routes, clearly has historical roots.

Although it is critical to preserve these road-oriented historic resources, the continuation of this land use pattern raises concerns due to traffic increases. The ease and convenience of developing lots directly accessing major Township roads has led to congestion and access problems.

### **Residential Uses**

West Caln Township does not contain large villages, nor does it have major concentrations of development. Most residential development is in the form of single-family detached units on lots of one acre or more. This is scattered throughout the Township, and though not concentrated, residential uses are more prevalent in the south and southeast regions. Residential uses are found fronting on all major roads frontages and along private roads serving predominantly four lots each. Large lot subdivisions have developed more recently. There are seven mobile home parks located in the Township, most of which are considered medium density. Multi-family properties are scarce.

### **Commercial/Industrial Uses**

Commercial development is limited to only a few parcels supporting uses such as automotive repair, gas/convenience station, restaurant/tavern, and laundromat. The need for commercial services is generally satisfied outside the Township by large commercial centers. Several residential and agricultural properties also support commercial activities. Such supplemental uses include greenhouses, appliance/machine repair and farm produce sales. There is only one industrial facility in the Township, a light manufacturing plant that provides specialized parts for the paper industry.

### **Community Facilities**

The number of community facilities is limited to the public elementary school, the fire stations, the Township's buildings, churches and recreational facilities. These are not particularly concentrated in any one location, but are found throughout the Township, with a slightly heavier occurrence in or around Martin's Corner, Wagontown and Compass.

## **FRAGILE LANDS AND SENSITIVE NATURAL FEATURES**

As the understanding of the role of fragile natural lands such as wetlands, woodlands, significant soils, steep slopes, stream corridors, headwater areas and underlying geological formations increases, the need to protect these areas becomes more evident. Altering fragile natural lands can have long term, or even permanent environmental ramifications that are not always immediately obvious. Recognizing the importance of fragile natural lands to maintaining environmental quality, and ultimately the health and well-being of residents, is a critical consideration in developing a future land use plan.

### **Water Resources**

There are fragile lands associated with the Brandywine Creek since the headwaters region is located in the Township. These include the creek corridors, floodplains, and riverine wetlands. The creek is the primary water supply for a large part of Chester County's population.

The underlying geological formations are major determinants of groundwater supplies. Although the geology underlying most of the Township yields sufficient water for residential use, areas of low yields are present in the northwest and in a limited number of other areas. Carbonate geology, which usually yields high amounts of groundwater, but is more susceptible to groundwater contamination, underlies the Compass vicinity, as well as other isolated areas in the Township.

### **Steep Slopes**

Slopes of 15 percent or more are considered fragile lands. Construction on steep slopes can cause erosion which could impact drainage on a regional basis. Soils on steep slopes tend to be shallow and have difficulty supporting septic systems. Installation of infrastructure to support even minimal development can not only be challenging due to the required clearing, but can alter the drainage pattern, increasing the potential for erosion. The Barren Hills and the State Hills are both areas of steep slopes in which extensive future development should be limited.

### **Agricultural Lands**

Class I and II soils, considered "prime" agricultural soils due to their high productivity, are found in a very wide band generally traversing the Township from the southeast to the northwest. They encompass the vast majority of the Township's land area and a significant percentage of this land is actively farmed or lies in fallow. The agricultural industry has a strong tradition in Chester County and a particularly strong tradition in West Caln Township. Preserving these valuable lands so that they can continue to produce food for human consumption is a responsibility that must continued.

### **Environmental Mitigation**

Contaminated areas of the Township require special consideration. Two superfund sites, the William Dick lagoons and the Blosenski Landfill, are currently undergoing clean-up efforts that involve extracting and cleansing the groundwater. The mitigation activities being conducted by the U.S. Environmental Protection Agency are affecting a large area in central West Caln Township. Since groundwater may not be a viable potable water source in the contaminated areas, the locations of these sites, and the extent of their known impact, should be disclosed in an effort to increase public awareness and caution potential buyers.

In general, new development should be directed away from areas of environmental contamination to protect the public and to allow mitigation activities to proceed unhindered. Although technology may be available to facilitate the use of groundwater if there are no other feasible alternatives, such as extension of a public water line to provide potable water, the existence of an individual well in an area undergoing mitigation could negatively affect clean-up efforts. New development in areas affected by environmental contamination is highly discouraged.

## **INFRASTRUCTURE**

The future land use plan must take into account both existing and planned infrastructure. Infrastructure in this context includes the roads, public sewer and public water systems. The location and capacity of the infrastructure must be factored when determining the location of future development to ensure that it can be accommodated at the densities prescribed. Cost must be considered as well. There is a cost associated with all new development, not only in terms of providing services such as schools, parks and emergency services, but future costs in installing of improving roads and extending water and sewer lines.

### **Roads**

West Caln Township has an extensive road network. The roads overall have been adequately maintained, and despite the need for some improvements as indicated in the Transportation and Circulation Plan, they are in relatively good condition. Upgrading the functional classification of the major roads is needed, and this will assist in better accommodating future traffic. The functional classification of King's Highway is proposed to be upgraded, as well as the functional classification of Route 10. Frontage development should be discouraged in general, except in certain circumstances to continue the village pattern. Controlling access on the key highways will facilitate a higher degree of mobility. The future functional classification must be coordinated with future land uses to ensure that the circulation network is adequate.

### **Public Water and Sewer**

Although the use of public water and sewer can reduce potential contamination threats, the extension of water and sewer lines can also spur increased development in inappropriate areas. To focus new development and prevent suburban sprawl, the option of public water and sewer should be considered when physically appropriate, but balanced by zoning that clearly indicates future density. The extension of public water and sewer can be an especially important alternative to consider when fragile natural resources are at risk. Residential development at slightly higher densities usually precludes the use of individual wells and on-lot sewage disposal systems.

Careful planning of public water and sewer extensions can help to accommodate new development at a reasonable density while protecting natural resources. Promoting the use of public systems can be beneficial if extensions are limited to those areas planned for higher density uses and not permitted to be extended into outlying areas. The future land use plan should clearly delineate where public water and sewer extensions are desired and the type of development in terms of density that it is intended to accommodate. The location and density of future development should be the end result of the comprehensive planning process and not be determined by the capacity of public sewer and water lines.

### **PROJECTED POPULATION AND HOUSING NEEDS**

The Pennsylvania Municipalities Planning Code requires that the comprehensive plan provide for the housing needs of both existing and future residents. This includes assessing the existing housing stock, which is undertaken in Chapter 3, and ensuring that the future land use plan is able to accommodate the projected population. In addition, housing should be accommodated in different dwelling types and at densities appropriate for all income levels. The future land use plan should address this requirement by describing the residential uses anticipated for each land use category recommended and the overall density expected. Any alternatives to conventional residential development that might expand the types or densities of housing constructed in any one vicinity should be taken into consideration as well. A residential land use category that provides for conventional development, but offers options for clustering, lot averaging or planned residential development, allows for varying densities and often different housing types, and thus addresses the requirements outlined in the Municipalities Planning Code.

#### **Projected Population**

The population of West Caln Township reported by the 1990 Census was 6,143. The population increased between 1980 and 1990 by 24 percent. It is expected to continue to rise by 21 percent by 2000, 11 percent by 2010 and by 9 percent by the year 2020. According to the Chester County Planning Commission, the population in the year 2020 is projected to be 8,970, representing an overall increase of 17 percent or 1550 between the year 2000 and the 2020.

The average household size in West Caln Township according to the 1990 Census was 3.03 persons per household, down from 3.16 persons per household in 1980. At a household size of 3.03 persons, the increase in the number of households by 2020 will be approximately 511. Consequently, the Township must accommodate 511 new units over the next two decades.

#### **Housing Needs**

Though West Caln is presently dominated by single family residential housing units, multi-family units and mobile homes provide housing options as well. The 1990 Census reports that over three-quarters of the housing is single family residential, with most of the remainder being mobile home units. The number of housing units in the Township increased by 28 percent between 1980 and 1990, similar to the County as a whole. Most housing in the Township (approximately 64 percent) was constructed after 1970, indicating that the housing stock is most likely in good condition.

The new housing being constructed continues to be mainly single family residential, with mobile homes the next most common form of new residential unit. The recommendations associated with residential development described in the following section address how and where new housing is envisioned to be developed to accommodate the projected population. Many of the recommendations suggest offering development alternatives that provide more flexibility in site design, which can result in varied housing types. Planned residential development is an alternative that provides for an especially high degree of flexibility in the number, type and density of housing units. This option is currently available in the Township's Zoning Ordinance.

Analysis of each municipality's "fair share" of residential dwelling types and densities is an important component of the comprehensive planning process, to ensure that a variety of housing options are available to appropriately address the needs of present and future residents. This analysis reviews the three tier test that evolved from planning case law that is now used throughout Pennsylvania as a basis for assessing fair share requirements. The fair share analysis for West Caln Township is included in Chapter 3, Demographic Characteristics. In summary, this analysis concludes that there is sufficient undeveloped land available in the Township to accommodate the projected number of new households in West Caln Township.

#### **LAND USE CATEGORIES: FUTURE LAND USE PLAN (2020)**

The land use categories form the basis of the future land use plan. These categories describe the types of uses envisioned for each region of the Township based on the various factors described earlier in this chapter, including the goals and objectives, the environmental constraints, existing land use pattern, infrastructure availability and accommodation of future population. These categories are represented in **Table 8-1**, and presented visually on the future land use map; descriptions are provided in the following text. It is important to stress that the purpose of the map is to serve as an overall guide in directing future development. It is not a zoning map, which is a regulatory document. The zoning ordinance and map essentially implement the future land use plan.

The description of each land use category is comprised of three parts. The purpose describes the intent of the category. The location describes where it is proposed to be located. The recommendations describe how development of these land uses should occur in order to implement the Township's future vision. The location of each proposed land use is illustrated on **Map 8-1**.

**TABLE 8-1**

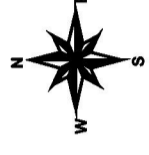
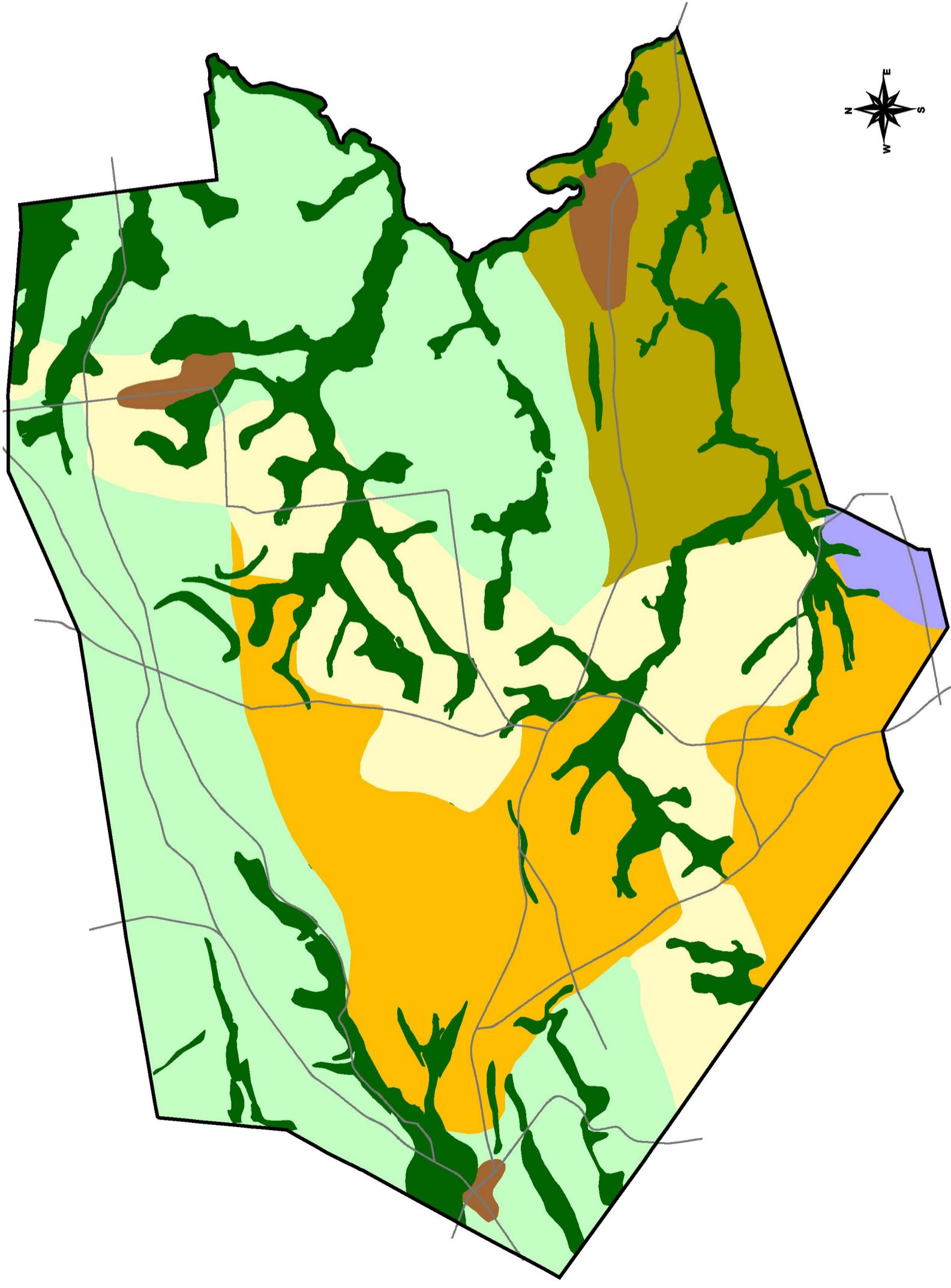
#### **FUTURE LAND USE CATEGORIES Proposed Future Land Uses by Acreage and as a Percentage of Total Land Area**

<b>LAND USE CATEGORY</b>	<b>ACRES</b>	<b>% OF LAND IN TOWNSHIP</b>
Rural Residential	2928.83 Acres	20.89%
Site Responsive Residential	6011.38 Acres	42.86%
Agricultural Conservation	3043.61 Acres	21.70%
Rural Center	1608.89 Acres	11.47%
Village	282.55 Acres	2.01%
Limited Industrial	149.04 Acres	1.07%
<b>TOTAL</b>	<b>14024.30 Acres</b>	<b>100%</b>

# Map 8-1

## Future Land Use

- Municipal Boundary
- Roads
- Natural Areas
- Future Land Use**
  - Agriculture
  - Industrial
  - Rural Center
  - Rural Residential
  - Site Responsive Residential
  - Village



1:39332



Data Source:  
West Caln Township Comprehensive Plan Task Force, 1997.

Material used in the preparation of this map has been interpreted by Chester County Planning Commission staff from preliminary data sources. The material has not been processed for quality control and is only used for draft mapping purposes. The planimetric and cadastral data on this map cannot be used for any other purpose without the express approval of the County of Chester.

**WEST CALN TOWNSHIP**  
Chester County, Pennsylvania

Comprehensive Plan





**Rural Residential****3043.61 Acres 21.70 percent of Township****Purpose:**

The purpose of the rural residential land use category is to accommodate new housing in well-designed developments that are sustainable in terms of natural resources and not wasteful of land. Sprawling residential development is highly discouraged and the preservation of open space is encouraged. The gross density in this category is envisioned to be one unit per one and a half acres, with net densities as high as one unit per one half acre as in a cluster development. An emphasis on cluster development and lot averaging to preserve open space is encouraged.

**Location:**

On the future land use map, the rural residential land use category is found in the east-central and west-central regions of the Township, primarily in areas that already have large pockets of residential land uses. In general, the location of this land use attempts to reduce encroachment into areas of prime agricultural soils. The siting of the rural residential land use is intended to "infill", on a very broad level, those areas in the Township that have already been subject to sporadic residential development, but to do so in planned fashion. Accommodating residential uses in this manner provides for broader protection of important natural features, mainly agricultural soils.

Rural residential land uses are intended to be developed as subdivisions that access the Township's primary roadways, but in a collective manner, thereby reducing the number of access points on key roads. This is particularly important along King's Highway, the major arterial where the flow of traffic is hampered by a multitude of individual driveways. These areas may be served by public water and sewer, particularly if the development is clustered, but no density reductions are envisioned due simply to the availability of these services. Clustering and lot averaging, however, should be highly encouraged through the use of regulatory incentives.

***RECOMMENDATIONS:*****Promote cluster development and lot averaging through zoning, and consider including incentives for the use of this technique in land development.**

The Township currently provides for cluster and lot averaging, but no incentives are in place to encourage these alternatives. Allowing for additional lots, providing the option as a by-right use, or waiving certain design standards may encourage the use of clustering as an alternative to traditional, sprawling subdivision development.

**Encourage the submission of sketch plans prior to preparation of formal subdivision applications.**

Sketch plans provide an opportunity for developers to work cooperatively with municipal officials on subdivision design. Using this option could reduce development costs as well as reduce the approval time. The sketch plan review process is offered through the Township and its use should be encouraged among developers.

**Site Responsive Residential****6011.37 Acres 42.86 percent of Township****Purpose:**

The purpose of the site responsive residential category is to conserve environmentally sensitive areas and permit residential development only under limited conditions. The Township has many environmentally constrained areas which require sensitive development. This category is intended to allow residential uses, but only at a density that can appropriately be supported without negatively impacting the environment. The densities are anticipated to range from one unit per one and one-half acres potentially to one unit per four acres depending on the environmental features located on the site. Cluster development with open space requirements of at least 50 percent should be very strongly encouraged, and made mandatory if warranted. The conservation of these sensitive lands will require that restrictions be tailored to specific areas.

**Location:**

The future land use map shows the site responsive residential land use category in several areas of the Township. It is shown in areas of steep slopes formed by the Barren Hills and the State Hills. Residential development in these areas must adhere to building restrictions necessitated by slopes of 15 percent or more. This category is also shown in the headwaters region of the West Brandywine Creek, specifically the north-central and northwest regions of the Township. Restrictions on the areas surrounding both Chambers Lake and the Coatesville Reservoir should be considered to reduce the potential for contamination. Protection of these areas is necessary to protect the quantity and quality of these drinking water supplies.

The site responsive residential land use category is also designated for areas that, due to underlying geology, may only support limited groundwater extraction. These areas are found in the northeast region and underlying the village of Compass. The limestone geology underlying Compass could cause groundwater contamination if inappropriate development occurs. Protecting all of these sensitive areas by maintaining lower densities, siting housing to lessen negative environmental impacts, and providing for a higher degree of regulation in order to protect sensitive resources is the intent of this category.

The site responsive district (along with the agricultural conservation district) is also suggested for the areas impacted by Superfund mitigation efforts. The extent of environmental contamination is estimated to encompass a large area around the William Dick lagoons, roughly bounded by Sandy Hill Road, Telegraph Road and Cambridge Road in the north-central part of the Township. The Blosenski landfill site is located in an area bounded by King's Highway and Coffroath Road. The use of wells for potable water may not be feasible in these areas due to contamination of groundwater supplies. The type of mitigation being undertaken by the U.S. Environmental Protection Agency (in this instance the pumping and treating of contaminated groundwater) may also limit the use of wells in these vicinities. Extreme caution must be exercised throughout the subdivision and land development process to ensure that the quality of well water is, and remains, acceptable. Measures should be implemented to ensure that wells continue to be safe sources of drinking water after the occupancy permit is issued. The Chester County Health Department may be contacted for further information on the well testing and permitting process.

***RECOMMENDATIONS:*****Develop conservation zoning for the protection of fragile resources.**

This type of designation would "overlay" the existing zoning and set forth additional restrictions intended to protect identified resources. These restrictions could include such measures as restrictions on the types of accessory uses typically permitted, limiting the by-right uses and modifying setbacks to lessen negative impacts.

**Reduce development of fragile lands by excluding them from density calculations.**

The net-out concept can be used as a method of protecting all types of resources. It is basically a technique that requires sensitive lands to be deducted from density calculations. Its purpose is to reduce the credit for these lands toward the amount of development that can occur on a parcel. This technique is also described in Chapter 9 as a way to protect wetlands; however, it can also be used to protect other resources as well.

**Encourage flexibility in site design by allowing cluster development as a by-right use in the zoning ordinance.**

Currently, cluster development is provided only as a conditional use and as such, requires a series of public hearings which can be costly and time-consuming. Allowing cluster development to occur in the same manner as traditional development encourages the use of this alternative.

**Consider developing an educational program that advises residents on the importance of periodic testing of well water.**

The community should be made aware of any environmental concerns associated with property in the Township, particularly regarding the quality and quantity of the potable water supply. Although it is required by the Chester County Health Department that well water meet certain quality standards prior to the issuance of a permit, property owners should be advised that contamination can occur after a permit is granted. Regular testing of the well water should be part of all home maintenance programs, especially in those vicinities that may be susceptible to groundwater contamination.

Developing educational information for distribution through individual mailings, through the Township newsletter, or as part of another type of mailing or program should serve to educate the community on homeowner responsibilities associated with ensuring safe drinking water supplies.

**Agricultural Conservation**

**3043.61 Acres 21.70 percent of Township**

**Purpose:**

The purpose of the agricultural conservation land use category is to protect prime agricultural soils and reduce development pressure that can negatively affect the agricultural industry. West Caln Township has very valuable agricultural lands and many working farms. Studies have consistently shown that agricultural land uses, as compared to residential, commercial and industrial land uses, contribute more to the tax base than they require in services, creating a funding surplus. Protecting the agricultural industry as a whole, and in the process retaining the rural character of the Township, and goals cited in past and current planning documents. In order to accomplish this, however, it is important that the needs of the agricultural community be recognized, and that any alternatives respond to their concerns as well. This will likely involve protecting large tracts of agricultural lands through transferable development rights or by providing for spin-off lots in some manner.

Farmers throughout the Township, due to rising taxes, conflicts with incompatible land uses, restrictions on farming operations and farm-related businesses, or simply the lure of a large return on the land sale, often must face the difficult decision of leaving the industry and selling the land for development. Once farms are sold for development, however, prime agricultural soils are permanently lost and cannot be recovered. Recognizing these difficult and conflicting circumstances by designing solutions that balance the economic needs of the farmers with the desire for preserving this valuable resource is the challenge of agricultural conservation.

**Location:**

The future land use map shows the agricultural conservation category as extending through the central region of the Township in a southwesterly to northeasterly fashion. This category encompasses the region within the Township dominated by prime agricultural soils and includes the parcels contained in Agricultural Security Districts. The topography is generally low or rolling, with a limited number of transportation corridors serving mainly the agricultural community. Although residential development and recreational uses are scattered throughout this region, the existing land use is primarily agricultural with a number of the vacant parcels lying fallow or farmed on a rental basis. Many of the farms in this region are owned by members of the Amish community, a sect which has maintained a long tradition of agriculture and values farming as an occupation.

This land use category is positioned to overlay prime agricultural soils while avoiding the sensitive headwaters region. Since agriculture can be considered an industrial use and as such, requires the application of chemicals which could pollute water supplies, measures to reduce the pollution threat are needed. The presence of livestock can also contaminate headwater areas when agricultural uses occur adjacent to sensitive lands. Precautions should be taken to prevent possible contamination of surface and groundwater supplies. Additional measures to address the loss of topsoil, stormwater runoff on agricultural lands, and stream quality on farmland are included in Chapter 9.

***RECOMMENDATIONS:***

**Consider effective agricultural zoning that protects farm land and prime soils; however, this must not be at the expense of landowners.**

The best way to protect prime soils and encourage continuation of the agricultural industry is to restrict the type of development that can occur on these lands. Agricultural zoning is used throughout Chester County and throughout Pennsylvania as a way to limit encroachment into productive agricultural regions. There are many approaches to this type of zoning and a strategy tailored specifically to West Caln can be developed. The following is a brief summary of different types of agricultural zoning that have been proven successful.

Large Minimum Tract Size: This type of agricultural zoning takes a very straightforward approach by simply requiring large minimum lot sizes. As an example, minimum tracts may be 25, 40 or 80 acres or more or less depending on the municipality. This is especially appropriate in areas dominated by small, family-oriented farms such as those owned by Amish. They may not be as useful for commercial type farming since it does provide for inadequate parcel sizes.

Fixed Area Based Zoning: Agricultural zoning of this type allows for a fixed number of dwelling units to be permitted per a specific number of acres. The lots are then required to be sited where they least impact the agricultural use. The number of acres required per unit can vary; a common number is one dwelling unit per 25 acres.

Sliding Scale Area Based Zoning: Sliding scale zoning differs from fixed area zoning in that the number of lots permitted varies according to acreage of the tract. A higher number of lots is permitted for smaller tracts while a lower number of lots is permitted for larger tracts. This is based on the view that the agricultural use of a smaller tract has already been compromised, therefore residential uses are more acceptable.

Exclusive Agricultural Zoning: This type of zoning allows only for agricultural and related uses, and prohibits other uses including residential development. Although a relatively strict zoning designation, it does reduce the development pressure by eliminating the potential for incompatible uses.

Percent of Land Zoning: Instead of specifying the number of dwelling units permitted on a tract, some agricultural zoning scenarios take a different approach by specifying the percent of the tract that can be developed. An ordinance of this type may state, for example, that a maximum of 10 percent of the tract may be developed.

**Consider expanding use opportunities in agricultural areas to allow for additional farm-related or secondary businesses.**

To remain economically viable, it is often necessary for farmers to participate in businesses that supplement their income. Traditionally, these kinds of businesses have been directly related to agriculture, for example farm markets or nursery sales. Expanding these opportunities to include a broader range of commercial activities can provide the agricultural community the flexibility they need to continue farming while also supplementing their income with other businesses. Examples of such uses include machine or small engine repair, craft production or sales, limited produce processing, farm supply sales and service, and taxidermy.

**Investigate establishing a Transferable Development Rights program.**

This type of program, authorized through the Municipalities Planning Code and administered through the municipal zoning ordinance, designates both "sending" and "receiving" areas within the Township boundaries. Owners of land in a sending area may sell the "development rights" associated with a particular parcel to a developer or land owner in a receiving area. Through the purchase of development rights, the developer then has the ability to slightly increase density of a particular parcel in the receiving area over and above the base zoning. There is an administrative burden associated with such a program, but overall, it can be very effective in directing development to appropriate areas and preserving agricultural lands while allowing the realization of the value for development purposes.

**Rural Center**

**1608.89 Acres 11.47 percent of Township**

**Purpose:**

The purpose of the rural center land use category is to serve as the focus for future, primarily residential, development. Following the precedent established in the Comprehensive Plan (1974) which initially identified a "development area" and described the concept of focusing development, the rural center is intended to accommodate future residential development at densities of one unit per one-half acre (or less) to one unit per one acre. Though the Township clearly supported the creation of the development area, the concept was not translated into zoning language, and consequently, sprawling suburban development on large lots occurred instead.

The rural center land use category creates incentives for new construction within its boundaries by allowing for more units per acre and encouraging the extension of sewer and water lines, but only within the rural center boundary. Conversely, extensive development is discouraged outside the boundary through other land use restrictions.

To facilitate development of a unified community within the rural center land use category, the Township should strive to ensure that subdivisions and related development within the rural center are well-planned and integrate with adjacent parcels. Since the intent of the rural center is to create a "community within a community", a master land use plan is recommended. A master land use plan would take this concept further by evaluating and recommending residential design options for some specific parcels, evaluating the potential for neighborhood commercial uses and determining the need for additional community services. This type of master land use plan could then form the basis for more specific implementation strategies which could then be translated to an Official Map.

The Township has a very unique opportunity to "create" a community. All new development proposed for the rural center should exhibit innovative residential design that provides varied housing options that are complementary in design and style. Recreational and open space needs of the residents should also be addressed both within each specific development as well as within the rural center as a whole. The Township should support flexible site layout within the confines of broad design standards in order to stimulate creativity.

The rural center may include limited commercial uses that support, on a proportionate basis, the needs of the residences and are highly integrated into the site design. Considering that a wide range of commercial uses and services are in close proximity to West Caln residents, there is little need for extensive commercial development. Only neighborhood-oriented commercial uses should be considered, and only in accordance with specific design standards.

Planned residential development options provide some of the flexibility required; however, a broad vision of the "community within a community" concept is critical to the development of the rural center in a cohesive manner.

**Location:**

The rural center land use category is located in the southeast quadrant of the Township extending roughly from north of King's Highway to the southern boundary, and from the eastern boundary to west of Ash Road. This category is similar in location to the development area described in the Comprehensive Plan (1974).

Compared to other regions of the Township, this area contains fewer environmental constraints and although there are active farms, overall there are fewer prime agricultural soils in this region. Some development constraints are posed by steep slopes along the southern boundary, but the land is mostly gently rolling and well-suited to residential development. Two key areas of protected open space are found within these boundaries, the Saalbach Farm and the Coatesville Reservoir. These areas help with the retention of the rural character and give the sense of a lower overall density.

In terms of infrastructure, it is encouraged that all new development access public water and sewer, or if this is not practicable, to use community systems. In this way, sprawl development can be discouraged, lot sizes can remain reasonable yet functional, and creative, innovative site design can take the place of sprawling, characterless, single-family houses.

***RECOMMENDATIONS:***

**Consider establishing a rural center zoning district with distinct boundaries that fosters creative, innovative residential development at densities that create neighborhoods and a sense of community, and discourages sprawling, uniform development patterns.**

Residential development on smaller lots can create a built environment that, if designed appropriately, creates neighborhoods, encourages social interaction and facilitates a sense of community. Developments of this type are often less costly in terms of community services and are less damaging environmentally.

**Consider development of a master site plan for the area within the rural center land use category that can be translated into an Official Map.**

The purpose of the rural center is to create a community with developments that interrelate. A master land use plan could help to define components that would create this community and graphically portray the location and design of future land uses. This master plan could then serve as a guide for developers in designing new subdivisions and also assist municipal officials in reviewing proposed development plans. The Official Map can be used to delineate the pattern desired.

**Encourage planned, unified developments that create neighborhoods while simultaneously meeting recreational and open space needs.**

New development within the rural center should be required to consider the recreational needs of residences in order to provide opportunities within a reasonable proximity and to reduce the burden on the Township to provide for recreation.

**Encourage the use of traditional design concepts such as the grid development pattern, central square and through streets in new developments proposed for the rural center.**

Traditional neighborhood design can help to create a rural center that emulates a village or small town in terms of development pattern. This type of development pattern can help reduce sprawl, conserve resources, and create neighborhoods while at the same time providing housing at densities that protect open space. Regardless of the type of development, design standards are essential to convey the Township's vision for the rural center and to guide site planning.

**Village**

**282.55 Acres 2.01 percent of Township**

**Purpose:**

The purpose of the village land use category is to recognize the crossroads villages of Martin's Corner, Compass and Wagontown and to encourage new development in keeping with the existing character. Although the development of each of these villages was influenced by different factors, all three served primarily as community and service centers for the surrounding agricultural regions. Each was important historically to the development of West Caln Township and they still contain evidence of that history in the form of buildings, sites and land use patterns.

The scale of development in both Martin's Corner and Compass is very small, and even though each contains a very limited number of developed parcels, a village pattern is none-the-less evident. The pattern exhibits shallow set-backs, narrow side-yards, two story building heights, building placement limited to frontages and concentrated at the crossroads (and in the case of Compass, one block east), and expansive viewsheds visible from the roads between structures. New development has not always respected this pattern as exemplified in and around Compass and Wagontown. Encouraging the continuation of the village pattern and land uses, even though somewhat marginal, can help to strengthen these areas as both past and future service centers.

The land uses in the village cores vary, but are mainly residential. All are surrounded by agricultural uses. Although these areas were once significant commercial and community centers, their importance has diminished. Encouraging infill development that complements the remaining uses could help in the retention of these qualities and help to preserve some of West Caln's history. The Township has provided for the continuation of these village as minor service centers, and this policy should be sustained.

**Location:**

The future land use map shows the village land use category at Martin's Corner, Compass and Wagontown. These are the areas that contain a minor concentration of residential, commercial and/or community facilities and retain some elements of a village pattern.

Though the general intent of the village land use category is to preserve the core and foster appropriate expansion, it must be recognized that the land surrounding Martin's Corner and Compass both contain environmental constraints that limit expansion. Also, these two areas have important scenic qualities that should be preserved which would preclude

expansion of the village pattern in the most typical manner.

Martin's Corner is particularly sensitive because of the underlying geology which yields limited groundwater, its upland location from Chambers Lake, its proximity to important headwaters, and its proximity to Hibernia Park and the Hatfield Historic District. Important viewsheds are found in each direction and infill development must be designed to protect these views. Development occurring off the crossroads should be clustered or buffered to protect the scenic vistas.

The main environmental constraint affecting development in and around Compass is the carbonate geology underlying the area. The groundwater in this region is particularly susceptible to pollution and the development of new wells and septic systems should be limited. There are important viewsheds, primarily to the south and west along Route 10 that should be protected as well. Considering that Compass is located at the juncture of King's Highway and Route 10, two of the primary roadways in the region, future expansion of commercial or service uses in Compass will likely occur despite the limitations. Access management at this difficult intersection should be a key consideration when reviewing proposed new development, considering the high volumes and the prevalence of truck traffic. Topography could also prove a hindrance. Wagontown is not discussed in detail because it is intended to be part of the rural center described previously.

#### ***RECOMMENDATIONS:***

##### **Consider developing a village overlay zoning district that protects the village pattern.**

A village overlay zone could be designed to protect the existing land patterns and encourage future development thereby strengthening these patterns. Land uses could be permitted that encourage the development of the village into a minor service center while still respecting the historic character.

##### **For new residential development, consider requiring development that emulates the traditional patterns and protects the viewsheds.**

The villages in West Caln have unique historical and scenic qualities which should be respected as new development occurs. Requiring future residential development that helps the village to retain these characteristics and conserve the scenic qualities is important.

#### **Limited Industrial**

**149.04 Acres 1.07 percent of Township**

##### **Purpose:**

The purpose of the limited industrial land use category is to help address economic development goals. Industrial and commercial uses can help generate employment and supplement the tax base. Residential development tends to require more in services and facilities than it generates in tax dollars, while industrial development usually contributes more in taxes than it requires in services. The City of Coatesville, as well as the Boroughs of South Coatesville and Modena, all contain industrial lands and serve as the regional focus for industrial development. West Caln may consider encouraging limited industrial development that supplements the nearby heavy industrial uses.

The limited industrial land use category is intended to include light industrial uses such as wholesale and distribution facilities, secondary assembly and packaging uses, and office and research facilities. This district should include the same types of uses presently permitted in the industrial park in Valley Township at the West Caln border.



**Location:**

The future land use map shows the extreme southern tip of the Township as dedicated to the limited industrial land use. This vicinity is adjacent to the Highlands Industrial Park which has already been platted for industrial purposes. Several of these lots are physically located in West Caln Township. A continuation of the light industrial uses similar to those permitted in this industrial park is a logical use of adjacent parcels. This would likely become a desirable area in the future due to the ease of access off Route 30, location of key markets, and proximity to a trained workforce.

***RECOMMENDATIONS:*****Consider establishing a limited industrial zoning district.**

Industrial land uses can contribute substantially to the local tax base. The Township currently has only one industrial facility. The southern part of the Township, primarily because of adjacent land uses and proximity to Route 30, is a prime location for light industrial uses. Care should be taken in developing use restrictions; industrial development should only occur in accordance with stringent design and performance standards.

## Chapter Nine

### NATURAL AND HISTORIC RESOURCES PLAN

West Caln Township has an abundance of natural and historic resources that blend to create a unique rural character. This plan element addresses the protection of important resources that contribute to that character and add to the high quality of life enjoyed by residents, while also allowing development to occur in a reasonable manner. The Township's natural and historic resources essentially create the setting within which future development will occur; the recommendations offered in this plan element describe how new development can be designed to complement that setting.

The recommendations contained in this chapter address the following goals and objectives:

#### **GOAL:**

**Preserve the rural character of the Township by protecting those natural, scenic and historic features that contribute to that unique character and the local quality of life.**

#### **OBJECTIVES:**

**Respect historic patterns of development when considering future land uses.**

**Evaluate the effectiveness of measures currently in place intended to protect natural and historic features and consider new alternatives.**

**Identify and evaluate historic resources, and investigate methods of encouraging their preservation through both public and private initiatives.**

**Consider environmental factors when determining future land uses.**

**Preserve natural resources, including woodlands, wetlands, steep slopes, and agricultural soils, by limiting actions that could damage these resources.**

#### **GOAL:**

**Use new and innovative land management tools and techniques to promote the preservation and protection of natural, scenic and historic resources.**

#### **OBJECTIVES:**

**Examine existing regulatory provisions to determine gaps in protective measures and implement changes where needed.**

**Evaluate the potential of such techniques as a village protection program, a transferable development rights program, and historic overlay district for the purpose of protecting existing landscape features.**

**Monitor land development to ensure compliance with existing standards.**

**Provide information to residents on the long and short term benefits of historic and environmental protection measures, and the resulting impact on the local quality of life.**

This chapter is divided into two sections, the first focuses on natural resource protective measures, and the second focuses on historic preservation. Each recommendation describes how the action will address the goals outlined and suggests specific implementation measures.

## **NATURAL RESOURCES**

The recommendations concerning natural resource protection were derived following a review and analysis of West Caln Township's goals and objectives, the inventory data and resulting planning implications, and the direction given by the Township officials serving on the Comprehensive Plan Update Task Force. Since most of the recommendations may impact more than one resource, they are not categorized, nor are they prioritized; each may be considered independently. The recommendations are intended to provide West Caln Township the direction needed to establish local policy that will accomplish the goals and objectives outlined.

### **Prime Agricultural Soils**

#### ***RECOMMENDATIONS:***

##### **Protect prime agricultural soils and the agricultural industry by limiting development of farmland.**

Approximately 40 percent of the Township's land area is devoted to agricultural purposes. Farming remains an important economic activity in the Township; however, prime agricultural soils are being lost to development. This is evidenced by the decline over the past two decades in agricultural use and the corresponding rise in residential use.

Agricultural protection zoning emphasizes preserving large farm parcels based on the profile of farms in the Township. Many agricultural districts simply require minimum lot sizes ranging from 25 to 50 acres and do not allow subdivision for residential purposes. Others allow for minimal development based on varying factors. The ultimate purpose of an agricultural zoning district is the protection of prime agricultural soils.

##### **Encourage the use of soil conservation measures on agricultural lands to reduce erosion and minimize topsoil loss.**

Erosion and loss of topsoil are critical problems that effect West Caln Township. Although many techniques for reducing soil loss have been proven quite effective, these techniques are not always widely accepted by the farming community. Techniques such as contour farming, conservation tillage and crop rotations are examples of ways in which erosion and soil loss can be minimized without requiring more effort or compromising productivity. Cooperating with the Chester County Conservation District, the Agricultural Preservation Board, and similar entities to encourage the use of such techniques by local farmers could help to reduce erosion and reduce the loss of valuable topsoil.

##### **Encourage participation in the Agricultural Security Areas Program.**

The purpose of an Agricultural Security Area (ASA) is to protect the land within the area, and the agricultural industry itself, from governmental regulations, nuisance ordinances and other activities that could hinder or limit farming. The program also offers some level of protection from State-initiated programs and from condemnation proceedings. Participation in an ASA program is strictly voluntary and does not limit land use. West Caln Township does have an Agricultural Preservation Board and many property owners are participating in the program; however, encouraging the expansion of the area could result in greater participation.

**Encourage the use of Act 319 and Act 515 provisions as a way of retaining important agricultural land.**

Act 319, the Pennsylvania Farmland and Forestland Assessment Act (the "Clean and Green" Act) provides tax relief to property owners by allowing agricultural land to be assessed based on such factors as soil characteristics, productivity and capacity for generating income. The program is voluntary and the provisions do allow for limited subdivision under certain conditions without a penalty. The minimum qualifying parcel is 10 acres or a minimum of \$2,000 gross agricultural income annually. The assessment remains on the property in perpetuity or until a change in use occurs; the agreement must be renewed every 7 years.

Act 515 also offers tax relief by affecting the land assessment; however this program is not used as extensively as Act 319. Act 515 provides for land assessment based on the present size, location and use, subsequently reducing the market value. The minimum qualifying parcel size is 10 acres. The provisions are enacted by a covenant that must remain in effect for a minimum of 10 years.

**Vegetation Conservation*****RECOMMENDATIONS:*****Consider requiring a Vegetation Management Plan to be submitted with development proposals.**

West Caln Township has a variety of vegetative resources that include woodlands, hedgerows and windbreaks. These resources not only add to the rural character of the Township, they also serve important environmental functions. Currently, the Township's Subdivision and Land Development Ordinance requires that a Conservation Plan identifying various natural features accompany development proposals of ten or more lots. Enhancing this provision to include specific requirements on the types of vegetation to be identified and sizes as applicable (for example the caliper of trees or the height of hedgerows), along with the location, provides more information on which to base decisions.

Developing protection standards, such as preventing the removal of individual trees over a certain caliper, or requiring equitable replacement, is also an option that may be included in the Subdivision and Land Development Ordinance. Establishing standards for vegetation management can be designed to benefit both the Township and the developer, because preserving existing (usually mature) vegetation is cost effective. Development costs are usually reduced when clear-cutting is minimized, and landscape credits issued for the existing vegetation could reduce the cost of purchasing and installing required new plant material.

**Consider controlling erosion and stream sedimentation by ensuring compliance with adopted stormwater management measures.**

West Caln Township addresses stormwater management in its Subdivision and Land Development Ordinance through objectives that encourage on-site retention that minimizes run-off. Specifying the range of Best Management Practices in the ordinance, including a hierarchy tailored to the Township in terms of site conditions, will give better direction in planning for stormwater. This could result in development that accommodates stormwater more effectively, facilitates groundwater recharge, and reduces erosion.

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**Coordinate with the Chester County Conservation District on issues relating to stormwater management and erosion control.**

Taking a proactive approach to monitoring new construction to ensure compliance with approved subdivision and land development plans can greatly reduce future problems. This is particularly applicable to stormwater management, and grading and erosion plans. Since the site grading can greatly impact surrounding lots and tremendously affect stormwater runoff patterns, insuring that these plans are implemented as approved, will result in development that meets standards contained in the subdivision and land control ordinance.

**Ensure that sketch plans, when submitted as part of the subdivision and land development review process, address protection of vegetation existing on the site.**

The submittal and review of sketch plans for subdivision and land development enables developers and local officials to work cooperatively in the preservation of resources existing on the site. Identifying key resources and evaluating alternatives before the plan is formalized is mutually beneficial because potential problems are addressed before a development plan are formalized and significant engineering costs are incurred.

**Water Resource Conservation**

***RECOMMENDATIONS:***

**Consider measures that "net-out" flood plain from lot areas.**

The West Caln Township Zoning Ordinance restricts construction in flood plains. The uses permitted include those mainly associated with agriculture and recreation; buildings may only be constructed under very limited conditions. However, the Township does permit up to three-quarters of the area of a building lot to be located within the 100 year flood plain, which could hinder flood control if the natural state of the flood plain is altered. In order to conserve this critical area and facilitate its role in flood management, and to preserve streamside vegetation, consideration should be given to requiring "net-out" of this sensitive resource. A net-out provision requires that land in the flood plain (or a percentage of land as determined by Township officials) be excluded from the minimum lot area permitted in that zoning district. The lot may still include flood plain; however, the minimum lot required would be unconstrained and the flood plain would simply be additional lot area.

**Consider wetlands protection measures.**

Although construction in wetlands is regulated at both the State and federal level, unless a mechanism is in place to ensure that those agencies are contacted as required, wetlands can be lost in the development process. Adding the wetlands to the list of resources to be shown on the Conservation Plan required by the Subdivision and Land Development Ordinance, will help to ensure that these resources are properly considered when development is proposed.

The Township may also wish to consider adopting wetlands protection measures that would preserve existing wetlands and wetland buffers that are not addressed by State or federal regulations.

**Investigate the adoption of a water withdrawal ordinance.**

A number of areas in the Township have groundwater resources that are not sufficient to support extensive development. In these areas, new development that is exclusively reliant on individual or community wells could reduce groundwater supplies for existing residents. In order to provide some level of control over

development dependent on groundwater resources, consideration should be given to development of a water withdrawal ordinance. Although these types of ordinances are quite new in terms of resource protection, they are rapidly being recognized as very important to securing a safe, long-term water supply for those dependent on groundwater resources.

## **HISTORIC RESOURCES**

West Caln Township has placed a high priority on the preservation of historic resources. Because development in the Township has been random, many unique rural resources have survived, allowing the municipality to retain much of its historic character. The Township has been proactive in the preservation of historic resources by supporting the development of a publication documenting the local history that includes descriptions of many historic properties, by establishing an Historical Commission to advise local officials on issues relating to historic resources, and by supporting the nomination of historic resources to the National Register of Historic Places.

The recommendations for historic resources were derived from the review and analysis of applicable goals and objectives, the Chester County survey of historic resources, relevant information contained in the West Caln Township Open Space, Recreation and Natural Resources Protection Plan, and direction provided by the Comprehensive Plan Update Task Force. For the most part, the following recommendations should be viewed as components of a comprehensive historic preservation program because many of the suggested activities are interdependent and require some level of preliminary planning or research before they can be undertaken. Development of a comprehensive historic preservation plan that extends beyond the parameters of this document should be considered.

### ***RECOMMENDATIONS:***

#### **Consider developing a comprehensive historic preservation program to be administered by the West Caln Township Historical Commission.**

There are many different types of actions that West Caln Township can undertake in order to promote historic preservation in the municipality. An historic preservation program can serve as a framework for those actions by addressing their implementation in an organized and coordinated manner. Many of the recommendations that follow represent components of a historic preservation program. Although many of the actions may be implemented independently, coordination is advised.

#### **Consider undertaking a comprehensive survey of historic resources.**

A survey of historic resources is the method by which data on historic resources is gathered and organized. A comprehensive survey goes beyond basic information obtained through field survey by requiring research into the property's historical development. A comprehensive survey documents each property, providing the data needed to evaluate the resource. The municipality can then use this information to create an inventory and determine preservation priorities.

A comprehensive survey must be well planned and organized to ensure that it yields the data desired. The State Historic Preservation Office (Pennsylvania Historical and Museum Commission) is the primary source of information on such undertakings in Pennsylvania and should be contacted before planning a survey. The PHMC can provide technical advice as well as supply the necessary guidelines and forms. The National Park Service has publications available that provide extensive information on both planning and undertaking a comprehensive survey. Copies of these publications may be obtained by contacting the regional office.

**Seek funding for a comprehensive historic resources survey from the Pennsylvania History and Museum Grant programs.**

The Pennsylvania Historical and Museum Commission administers several funding programs for projects and programs relating to historic preservation and museum operation. One of the primary grants offered, the Historic Preservation Grant, is specifically designed to provide matching funds for local preservation projects such as historic resources surveys, preparation of National Register nominations, and educational and interpretive programs.

**Use survey data to evaluate historic resources.**

An inventory of historic resources is a listing of significant resources that meet a defined criteria. An inventory is prepared once all historic resources are surveyed and evaluated; it is the inventory that provides the basis for determining municipal actions relative to historic preservation. West Caln Township, as described previously, has numerous rural historic resources that are not only important locally, but also give insight into the development of the region.

**Consider establishing a historic district in the Zoning Ordinance.**

The Municipalities Planning Code allows municipalities to address historic preservation in the Zoning Ordinance; however, little guidance is offered on how best to incorporate preservation concerns. Many municipalities in Chester County have adopted historic overlay districts which require historic resources to be mapped and classified in terms of significance. Specific treatments are then outlined for each class of resource when it will likely be impacted by a development proposal. A delay of demolition provision may be included to prevent demolition prior to a full review of the plan. One of the advantages of this type of approach is that it facilitates negotiation on the treatment of historic resources. Although an historic overlay district adopted through the Zoning Ordinance may not enable architectural review, it does encourage preservation by establishing development standards and encouraging adaptive reuse.

**Encourage the preparation of National Register nominations to give recognition to important local resources.**

The National Register of Historic Places is the nation's official list of historic resources. Nomination to the National Register is not only honorary, it also affords the property some level of protection by requiring that all federal projects and actions be reviewed for their impact on National Register properties. The owners of such properties are also eligible to apply for certain grants and take advantage of preservation tax credits. National Register nominations may be prepared and submitted in various ways depending on local goals and resources. An individual nomination may be prepared for a single resource, a multiple resource nomination may be prepared that includes several related resources, or a thematic nomination may be prepared for similar resources within a defined region. The comprehensive survey may serve as the basis for determining which properties should be considered for nomination to the National Register of Historic Places.

**Provide information and support education programs that encourage the preservation and rehabilitation of historic properties.**

Providing information to owners of historic properties on topics such as maintenance, adaptive reuse, rehabilitation funding and technical assistance is a necessary part of a preservation program. Since most historic properties are privately owned it is important to encourage private preservation efforts at all levels. Encouraging private property owners to maintain their historic properties by offering information and assistance, and showcasing their efforts through community recognition programs, builds a sense of community and fosters respect for local history.

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**Consider developing a Village Protection Program for Martin's Corner and Wagontown.**

Although both are small in area, Martin's Corner and Wagontown are crossroads villages that have unique historic and scenic qualities. A Village Protection Program can be designed to include different types of actions depending on local goals and the specific characteristics of the village. Actions that may be considered include establishing a "village" zoning district that is intended to preserve the built environment and ensure that new development is compatible. Provisions could outline standards for building coverage, lot size, setbacks, and signs that would respect the historic setting and complement existing development.

Another action that could be considered as part of such a program is establishment of a "viewshed" zoning district. This type of district is intended for the areas adjacent, but within view of the village. The viewshed is a particular issue in the village of Martin's Corner which offers scenic views from many points in and around the existing development. It should be noted that a viewshed zoning district is similar to a conservation district in that it does not prevent development, but rather sets forth development standards such as mandatory clustering, buffer provisions and setbacks that complement the village setting.

**Encourage historic preservation by supporting activities such as historic house tours, local recognition programs and heritage festivals.**

Community activities that showcase local history tend to generate broad support for historic preservation and create support for more comprehensive programs. West Caln Township is in the unique position of being able to capitalize on interest in the Hatfield-Hibernia Historic District. Local programs that complement the interpretive approaches used in that District may encourage more interest and support for historic preservation in West Caln Township.



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## Chapter Ten

### COMMUNITY FACILITIES PLAN

West Caln Township is responsible for managing municipal facilities and providing community services that address the needs of local residents. This plan element discusses the adequacy of these facilities and services and recommends measures intended to enhance the existing levels and assist in planning for future community needs.

The recommendations contained in this chapter address the Township's community facilities goals and objectives delineated as follows:

**GOAL:**

**Continue to provide for the development of community facilities and services that meet the physical and social needs of current and future residents.**

**OBJECTIVES:**

**Ensure that Township residents have a high quality water supply in the quantities sufficient to meet present and future needs.**

**Review the current sewage disposal practices and evaluate methods that could improve efficiency and reduce the potential for contamination.**

**Review solid waste disposal and consider ways to reduce volume and improve efficiency.**

**Continue to seek to provide recreation opportunities and secure open space that will enhance the quality of life for Township residents.**

**Review the effectiveness of emergency services including police, fire and ambulance services and consider modifications where appropriate.**

**Plan for the development of community facilities and services that address outstanding social, physical and recreational needs of Township residents.**

#### MUNICIPAL ADMINISTRATION

The municipality administers a broad range of community services and functions. The Township municipal building, located at 721 King's Highway, is centrally located and accommodates Township administrative functions including the police force. The building was completed in 1989 and although designed to be expanded in the future, it adequately accommodates current staff and administrative operations. The Township municipal building has a large, central meeting room designed to seat approximately 50 individuals. Meetings of the Township Supervisors, the Planning Commission and other municipal boards and commissions are regularly held in this meeting room; additional meeting space is not a present need.

West Caln Township has a total of five full-time employees and six part-time employees. The Township manager and the administrative assistant are both full time equivalents and are responsible for the day to day administration. The Township manager functions as the secretary, zoning officer and building inspector as well. Hiring a part-time building inspector has been discussed and is under consideration by the Board of Supervisors.

An additional road maintenance position was authorized and filled by the Township for a total of three full-time positions. This new position will help to ensure that the extensive road network throughout West Caln is properly maintained and that maintenance planning is undertaken.

***RECOMMENDATIONS:*****Consider hiring a building inspector.**

Development in West Caln is steadily increasing and there is a greater need to regularly monitor housing construction. The Township manager currently serves in this capacity; however, the time required is becoming significant due to the level of new construction. Hiring a building inspector, initially on a part-time basis, would help to ensure that new construction and building renovations are in compliance with the adopted building code. A building inspector could also assist with zoning compliance and help make certain that sites are developed in accordance with approved site plans. The Township could consider sharing a building inspector with a neighboring municipality.

**Consider hiring a zoning officer on a part-time basis.**

In addition to the administrative responsibilities, the Township manager currently serves as the zoning officer. Considering that development in West Caln Township is increasing and compliance with local ordinances is a concern, the Township may wish to consider hiring a zoning officer. This action could first be undertaken on a temporary part-time basis and evaluated after a specified time frame. Consideration may be given to using building permit and site plan review fees to fund the position. This position could also be shared with a neighboring municipality.

**Prepare a Township newsletter to be distributed bi-annually.**

The population of the Township is steadily growing, and the need for enhancing communications between Township officials and the residents is growing as well. A newsletter is a cost-effective means of dispersing information and encouraging citizen involvement in municipal activities.

**SOLID WASTE DISPOSAL**

West Caln Township has adopted the Chester County Solid Waste Management Plan (1990) which in part, obligates participants to use the Lanchester Landfill to dispose of municipal waste. This landfill is owned and operated by the Chester County Solid Waste Authority. Waste haulers in West Caln are all privately contracted and as throughout the County, haulers are required to be registered with the Chester County Health Department. The Township does not offer curbside recycling, but bulk bins are found at various drop-off centers in the Township.

***RECOMMENDATIONS:*****Investigate expansion of the municipal recycling program.**

Once the Township reaches the threshold delineated in Pennsylvania Act 101, the Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act, requiring mandatory curbside municipal recycling, a program will need to be established. The Township presently sponsors limited recycling opportunities and offers bulk pick-up of recyclables (such as appliances) four times during the year. Currently, bins for clear glass and aluminum are located at the maintenance garage. The Township should consider planning for a curbside recycling program now in preparation for this event. The Township has expressed support for a county-wide hazardous waste recycling project. In the short term, the Township may consider expanding the current recycling program to include colored glass, newspaper, office paper and opaque plastic. The Wagontown Fire Company and King's Highway Elementary School are drop-off points for newspaper recycling; these entities could be encouraged to expand their offerings as well.

**Consider adopting a Highway Maintenance Program.**

Highway maintenance programs, often in the form of "adopt a highway" programs, can be quite successful in reducing litter on key roadways. West Caln has an extensive roadway system that supports significant traffic volumes, which can result in a litter problem. Although the Township is concerned about the liability associated with such a program, encouraging residents to take an active part in roadside clean-up could reduce litter. The roads targeted would need to be those in which clean-up activities could be safely undertaken. Such a program could be administered by a community organization and publicized through the Township newsletter.

**WASTEWATER TREATMENT**

Act 537, the Pennsylvania Sewage Facilities Planning Act, mandates the preparation and adoption of municipal sewage facilities plans to manage wastewater disposal. West Caln Township's Sewage Facilities Plan was completed in 1978, but has not been updated since that time. Updating the plan and delineating contemporary wastewater treatment practices will assist the Township in meeting wastewater disposal needs. Most of the Township is reliant on on-lot sewage disposal facilities and it is projected that this demand will continue. Some residential development in the Township, specifically the mobile home parks, is dependent on community sewage disposal systems. Only a few residential units rely on public sewer facilities. Alternatives to on-lot systems, such as public sewers, should be considered for areas anticipated for higher density development and where environmental conditions prohibit the siting of safe on-lot systems.

***RECOMMENDATIONS:*****Update the West Caln Township Sewage Facilities Plan.**

The Township's Sewage Facilities Plan is in need of updating and municipal officials have already begun investigating updating this document. The future land use recommendations contained in the updated Comprehensive Plan should serve as the basis for the update. This planning process will afford the municipality the opportunity to thoroughly evaluate innovative, contemporary approaches to wastewater disposal and encourage the use of techniques that facilitate groundwater recharge. A hierarchy of sewage treatment types should be included in the plan as well as a description of the circumstances to which they are most suited. Many technological advancements have occurred in the last two decades which have improved wastewater treatment techniques. Municipal officials should consider the extension of public sewers within the designated growth area.

**Consider establishing an on-lot septic system management program.**

A significant number of on-lot sewage disposal systems in the Township have failed and others are suspected to be malfunctioning. Malfunctioning systems can be caused by any number of factors including poor design, poor maintenance and the age of the systems. The Township may wish to consider development, in cooperation with the Chester County Health Department, of a program for the management of on-lot septic systems. A program describing the functioning of septic systems and the type of maintenance needed would assist homeowners in properly caring for their on-lot systems, hopefully reducing contamination caused by improper care and maintenance. An educational program of this type could be structured in different ways depending on the local budget. It could minimally consist of general information conveyed through newsletters or brochures, or it could be more elaborate and involve workshops or seminars. The program should be tailored to local needs.

## WATER FACILITIES

The quantity and quality of potable water in West Caln has been and will continue to be a critical development issue. Most of the single family detached housing units in the Township rely on individual wells, while commercial and industrial facilities, mobile home parks, and campgrounds are dependent on community wells. Very little development in the Township uses public water. It is projected that new housing will continue to use individual wells unless the Township strongly encourages public water where feasible. New development in the southeast section of the Township can potentially access public water and municipal officials should facilitate this as far as practical. The use of public water is advantageous environmentally as it reduces dependence on groundwater, which in certain areas of the Township, is of marginal quantity and quality. Groundwater contamination as evidenced by the U.S. Environmental Protection Agency (EPA) Superfund site clean-up efforts is a serious matter and must be considered in planning for new development. Property owners should be aware of how contamination from the Superfund site affects parcels in the vicinity because the ability to obtain necessary permits could be impacted. The EPA regulations could also affect private property owners in the vicinity of a clean-up effort.

### ***RECOMMENDATIONS:***

#### **Identify and monitor the location of areas with contaminated groundwater subject to Superfund clean-up efforts.**

The EPA and the Chester County Health Department should cooperate with West Caln Township in defining the extent of contamination caused by the two Superfund sites in the Township. This information is needed by the Township in order to provide a basis for planning decisions for those parcels affected by both the contamination and the remediation efforts underway.

#### **Consider regulatory measures that require the periodic testing of individual wells susceptible to groundwater contamination.**

Especially in areas that could be impacted by groundwater contamination attributed to the Superfund sites, the Township should consider developing an ordinance that requires testing of the well water. Many different kinds of factors can affect the transfer of contaminants in groundwater supplies and periodic testing would help to ensure that drinking water supplies continue to comply with accepted standards. Regulatory measures of this type must be designed to meet the specific needs of the Township and could be implemented in conjunction with an on-lot septic system management program.

#### **Encourage the use of public water to meet potable water needs.**

The southeast section of the Township has seen an increase in new housing, some of which is served by public water and/or sewer. Since the southeast section will continue to be desirable from a development standpoint, the Township should facilitate the use of public water in this vicinity.

#### **Investigate limiting large scale water extraction in order to sustain potable water supplies for existing residents.**

In West Caln Township, the majority of the residents are dependent on groundwater for potable water supplies. Implementing an ordinance that would regulate commercial withdrawals would help ensure that the quality and quantity of groundwater feeding the existing wells is not negatively impacted. Although the groundwater regulation must be balanced with other types of resource protection, a reliable, long-term water source should be secured for those dependent on wells.

**Consider implementing a well-head protection program.**

The purpose of a well-head protection program is to reduce the potential of well contamination due to activities occurring on the land surface. Well-head protection programs are broad-based, comprehensive approaches to water resources preservation that are usually dependent on multiple regulatory measures. Well-head protection requires regulating land development that could negatively affect wells and water supplies; provisions protecting water supplies must be integrated throughout the Township's land development policies and ordinances.

Well-head protection is particularly important in West Caln Township in light of the broad contamination resulting from the super-fund sites. Even though many of the components of a well-head protection program are already part of local policy, linking these provisions to a comprehensive well-head protection program would likely give the municipality more authority to consider the quantity and quality of water resources when considering development scenarios.

**Consider protective measures for the headwaters regions that supply drinking water.**

The headwaters of many important streams are located in northern West Caln Township. These headwaters are the beginnings of the streams that create the surface water supply on which much of the County (as well as other regions downstream) rely. Adopting measures that protect these headwater regions by reducing non-point source pollution can help ensure that the high water quality is retained.

**Evaluate establishing a "conservation zone" around the Coatesville Reservoir and Chambers Lake to reduce the potential for groundwater contamination.**

Buffering the Coatesville reservoir and Chambers Lake through the use of a conservation overlay zone could help to reduce the potential contamination of these two water bodies. A conservation zone would not prevent development; it would instead reduce or regulate the type of development that could negatively impact these important water resources.

**STORMWATER MANAGEMENT**

The regulations contained in the Subdivision and Land Development Ordinance (SLDO) governing stormwater management provide a good foundation for the Township; however, there is still concern about stormwater runoff. Best management practices (BMPs) are described in the ordinance, but could be updated to reflect new findings. In West Caln, the SLDO requires a stormwater management plan to accompany proposed plans; however, a significant percentage of new housing is built on single lots that are not part of a larger development and are consequently not subject to the same level of scrutiny. The regulations associated with stormwater management should be revisited to ensure that they reflect the most up-to-date techniques. Also, the stormwater management regulations should be enforced to prevent future problems.

***RECOMMENDATIONS:***

**Closely monitor all new development to ensure that it conforms with the individual grading plan as required for single lots, and the stormwater management plan as required for subdivisions or other types of land development.**

Monitoring new development at key points during the construction phase can help make certain that it conforms to approved plans. Determining compliance early in the development process helps to prevent future problems that may need to be addressed by the homeowner or by the Township. Enforcing the regulations and ensuring that the developer or builder properly addresses stormwater can reduce erosion, facilitate groundwater recharge and help reduce flooding.

**Encourage developers to reduce the amount of impervious surface and maintain vegetative cover as a way to help manage stormwater runoff.**

Reducing the amount of impervious surface associated with residential, commercial or industrial development can help minimize runoff and can facilitate groundwater recharge. Open space or cluster development is an alternative to traditional subdivision design that requires less impervious surface because fewer roads and shorter driveways are needed. Clustering also allows for more open space which, if properly designed, can facilitate groundwater recharge.

Requiring that vegetative cover be retained during the construction phase is another way to reduce stormwater runoff, retain topsoil and prevent erosion. This is particularly important considering the number of streams in the Township that could be damaged by siltation and pollution caused by non-point runoff.

**Work cooperatively with the Chester County Conservation District on educational efforts that encourage farmers to use conservation measures designed for the agricultural industry.**

Stormwater management is important in the agricultural industry because runoff can carry valuable topsoil which in turn causes siltation of creeks and streams. Stormwater can also cause the runoff of fertilizers and herbicides necessary to the agriculture industry but detrimental to stream and aquatic life. Encouraging the agricultural industry to take stormwater runoff into consideration and work cooperatively with the Chester County Conservation District could help to reduce runoff, thereby reducing the potential for pollution problems downstream.

**Encourage the use of the cluster development option in the Subdivision and Land Development Ordinance to minimize disturbance.**

The West Caln Township Zoning Ordinance allows for cluster development; however, it is not used extensively. Encouraging the use of the cluster option by allowing a cluster subdivision as a by-right use could generate more interest in this type of development. Along with this approach, the Township may want to consider increasing the open space requirement associated with the cluster option to help ensure that the intent of the provision is met.

## **PARKS AND RECREATION**

The West Caln Open Space, Recreation and Environmental Resources Plan was adopted in 1995. It contains a comprehensive inventory and analysis of open space, environmental resources and recreational opportunities, along with a thorough list of recommendations to implement the plan. The inventory of recreational facilities contained in the Open Space Plan is summarized in Chapter 5. More specific information on West Caln's recreation resources can be found in the Open Space Plan.

***RECOMMENDATIONS:***

**Implement the recommendations contained in the Open Space, Recreational and Environmental Resources Plan (1995).**

The Open Space Plan contains a complete description of short and long term recommendations as well as an implementation strategy. The Township should regularly review the recommendations and annually budget for capital expenditures as required.

**Consider appointing an Open Space and Natural Resources Advisory Committee to help coordinate implementation of the Open Space, Recreation and Environmental Resources Plan.**

The Township appointed a Park and Recreation Committee to assist in implementing recommendations in the OSRER plan. It should consider similar measures to address the open space preservation component of the plan as well. The committee's mission would be to advise the Board of Supervisors on the types of actions needed for implementation. The Committee would also be responsible for monitoring the Plan's progress. Another alternative to consider is expanding the role of the Parks and Recreation Committee.

**The Chester County Parks and Recreation Department should communicate regularly with the Township on activities relating to the Hibernia County Park and Chambers Lake.**

Although the Township and County Parks and Recreation Department enjoy a positive relationship, a higher level of communication would be beneficial. With the recent completion of Chambers Lake and the new recreational opportunities that it could provide, changes in park attendance could result. The County should share information with the Township and include municipal officials in park planning actions and activities that could directly impact the municipality.

## **EMERGENCY SERVICES**

West Caln Township has a police force comprised of six part-time officers. Two fire companies, the Wagontown Fire Company and the Martin's Corner Fire Company, provide fire protection and ambulance service. Additional support is available on an as-needed basis from the Pennsylvania State Police. The provision of emergency services appears to adequately meet the demand in the Township at this point. As new development occurs, the demand for emergency services will increase, but determining the changes required will depend on an on-going evaluation process. The challenge over the next ten years will be to monitor the level of services and be able to respond as needed. With the county-wide changes in the fire company and ambulance service areas, special attention should be focused on fire and ambulance services in the near term.

### ***RECOMMENDATIONS:***

**Support additional training for the West Caln police force.**

Training is a continual need among police and public safety personnel. New approaches to the provision of services are constantly being refined and personnel should be given the opportunity to enhance their skills in order to provide better service to the municipality. Funding for training is an important part of a municipal budget and municipal officials should investigate the availability of grants through federal and State agencies for officer training and for certain municipal programs. Seeking grants in cooperation with other local police forces could improve the chances of grant awards. On-going contact with the State Police is also necessary to keep apprised of training opportunities.

**Continue to contribute to the two local fire companies.**

West Caln contributes to the financial support of the Martin's Corner and Wagontown Fire Companies. The Township should continue to contribute to these volunteer organizations and perhaps assist with equipment purchases or capital expenditures as feasible.

## EDUCATION

One public school and one private school supported by the Amish are located in West Caln Township. Most of the elementary students in the Township attend the public school, King's Highway Elementary School, others attend the Rainbow Elementary School in Valley Township and the Friendship Elementary School in West Brandywine. The King's Highway Elementary School is an important community facility and a focal point in the Township.

### ***RECOMMENDATIONS:***

#### **Maintain open, regular communication with the Coatesville Area School District to facilitate school planning.**

The Township should continue to work cooperatively with the Coatesville Area School District (CASD) on issues affecting schools and school planning. This includes regularly informing the district of the type and location of new development in the Township that could affect local enrollments. Conversely, the CASD should consult with municipal officials on issues that could impact the Township, particularly those relating to facilities.

#### **Consider joint efforts with the Coatesville Area School District to meet mutual needs.**

The Township and the CASD should investigate jointly providing recreational opportunities that maximize the use of the school facility. The King's Highway Elementary School is centrally located in the Township and is consequently a good site for recreational programs and community activities.

## HEALTH AND HUMAN SERVICES

West Caln Township residents have convenient access to many different types of health care facilities. A wide variety of health centers and medical facilities are located in proximity to West Caln residents. Most are situated in and around the Chester County municipalities of Downingtown, West Chester, and Coatesville. More specialized facilities and services are offered throughout the Philadelphia metropolitan region. Many West Caln residents also access services in the vicinity of the cities of Lancaster and Hershey.

A wide variety of human services are also available to West Caln to meet all kinds of social needs. Many of these services are offered through non-profit organizations, many of which are partly funded by Chester County. Other social services are directly provided by County agencies. Social service facilities are located throughout the County.

### ***RECOMMENDATIONS:***

#### **Retain general information for referral purposes on public health and human service facilities.**

As public administrators, Township staff should be generally aware of social services available in the County and be able to make general referrals as requested. Additionally, information on social services may be provided to residents perhaps through newsletters, informational brochures or publications. Many social service organizations provide brochures and flyers free of charge that could be retained on file in the Township offices. The police officers should also be aware of social services available, particularly the location of various types of emergency shelters.



**Participate in public hearings sponsored by Chester County agencies and respond to requests for information on social service needs in the municipality.**

Decisions on social service funding is highly dependent on receiving input from local officials on needs observed in the municipalities. Several County offices and agencies regularly request input in order to develop programs using State and federal funds. Municipal officials can assist in this endeavor by providing information on observed social service needs.

## Chapter Eleven

### TRANSPORTATION AND CIRCULATION PLAN

The Transportation and Circulation Plan is directly related to the recommendations of the Future Land Use Plan. Land use patterns in a community are partially determined by the roadway network. The purpose of this Plan is to address the following goals and objectives:

#### GOAL:

**Maintain a circulation system that is coordinated with the current and projected future land use and safely provides for access to all parts of the Township.**

#### OBJECTIVES:

**Identify hazardous road segments and plan for improvements.**

**Review the functional classification system and make modifications as necessary in order to facilitate land use planning.**

**Continue the maintenance and improvements of roads to ensure traffic safety and efficiency.**

#### IMPACT OF FUTURE DEVELOPMENT

Land use patterns and zoning practices impact future transportation planning. Land use patterns and zoning practices also have a significant impact on future transportation planning in the Township. Between 1990 and 1995, plans for 387 new residential units were approved for construction in West Caln. As of June 1997, 3174 acres classified as vacant or open space by the Chester County Assessment Office remain in the Township and are primarily zoned for residential use. If the remaining parcels of 10 acres or more were to be developed as allowed under the current zoning ordinance, approximately 1,900 new residential units could result, assuming no public sewer or water is available and no natural features constrain these sites.

Single family residential development can be expected to create some impacts on the circulation network. These impacts may be quantified in the form of vehicle trips which are added to traffic that already exists on the adjacent roadways. According to the Institute of Transportation Engineers (ITE) Trip Generation Manual, single family residential development can be expected to generate an average daily rate of 10 trips per single family dwelling unit and 4.8 trips per mobile home dwelling unit. Given this measure, approximately 16,322 trips per day could potentially be generated Township-wide should these sites be developed under the current zoning regulations. **Table 11-1** (based on 1997 conditions) shows an open land analysis based upon potential trip generation as it relates to current zoning.

Based upon the location of each of the parcels analyzed, the results of the projected trips can be assigned to individual roads that can be expected to be impacted. This trip assignment is based upon the road on which the parcel has frontage, and the probable destination of the traffic to determine the roadway which may be impacted. This analysis focused on individual road segments; however, the Township's entire road network must be considered when evaluating the total impact of increased traffic due to development.

Land development has historically occurred in a sporadic manner throughout West Caln Township. This pattern, if continued, will ultimately lead to an increase in traffic not just on the road segments directly impacted by development, but on the road network as a whole. Through concentrating development, the Township would be able to limit the number of roads impacted by an increase in traffic, minimizing road maintenance costs to the Township, reducing demand for expanded services and allowing for services to be conveniently and centrally located.

TABLE 11-1

**OPEN LAND ANALYSIS**  
**Potential Vehicle Trip Generation Based on 1997 Conditions**

Road Segment	Total Acres	Zoning	Total Unit	Trip/Day 0% Net Out*	Trip/Day 15% Net Out*	Trip/Day 25% Net Out*
Airport Rd.	119.4	R-1	119	1190	1010	890
Beacon Light Rd.	23.7	R-1	23	230	200	170
Birdell Rd.	66.4	R-1	66	660	560	500
Cambridge Rd.	39.9	R-1	39	390	330	290
Cedar Knoll Rd.	15.3	R-1	15	150	130	110
Coffroath Rd.	11.1	R-1	11	110	90	80
Compass Rd.	34.2	R-1	34	340	290	260
Debbie Dr.	33.1	R-1	33	330	280	250
High Point Ln.	76.0	MHP	304	1462	1240	1096
Hill Rd.	35.7	R-1	35	350	300	260
Martins Corner Rd.	120.7	R-1	120	1200	1020	900
Meadow View Dr.	13.9	R-1	13	130	110	100
Morris Lane	18.4	R-1	18	180	150	140
N. Bonsall Rd.	10.1	R-1	10	100	85	75
Sandy Hill Rd.	200.1	R-1	200	2000	1700	1500
Oak Lane	12.5	R-1	12	120	100	90
Octorara Tr.	53.5	R-1	53	530	450	400
Old Wilmington Rd.	62.1	R-1	62	620	530	470
Parkesburg Rd.	40.3	R-1	40	400	340	300
Red Mill Rd.	15.6	R-1	15	150	130	110

<b>Road Segment</b>	<b>Total Acres</b>	<b>Zoning</b>	<b>Total Unit</b>	<b>Trip/Day 0% Net Out*</b>	<b>Trip/Day 15% Net Out*</b>	<b>Trip/Day 25% Net Out*</b>
Reservoir Rd.	59.9	R-1	59	590	500	440
Skiles Rd.	51.9	R-1	51	510	300	380
Sugarman Rd.	69.6	R-1	69	690	590	520
Telegraph Rd.	238.5	R-1	238	2380	2020	1790
Wagontown Rd.	46.7	R-1	46	460	390	350
W. King's Hwy.	105.8	R-1	105	1050	890	790
<b>TOTAL</b>	<b>1,5751</b>		<b>1902</b>	<b>16,322**</b>	<b>13,740**</b>	<b>12,266**</b>

Source: Chester County Planning Commission (1997), Institute of Transportation Engineers (1991)

\* Calculations were based upon a formula that weighed environmental factors which may preclude the use of certain land for building purposes. Percentages of 0, 15 and 25 percent were used to deduct the environmental factors and infrastructure from the total existing acreage.

\*\*Numbers may vary slightly due to rounding

#### ***RECOMMENDATIONS:***

**Establish a policy by which traffic counts are conducted on a regular basis to identify roadway needs and functions.**

Traffic counts can provide valuable information on the volume of traffic a particular road carries and can also identify peak traffic hours. Current information of this type can assist in decision-making related to the Township's roadways.

**Require a Traffic Impact Study for all major developments to be included in the Subdivision and Land Development Ordinance.**

Traffic Impact Studies measure the effect that a proposed development has on the circulation system in the vicinity. Determining the improvements needed prior to development can identify potential problems and solutions before new construction occurs.

#### **FUTURE FUNCTIONAL CLASSIFICATION**

The functional classification of roads described in Chapter 6 provides a framework within which the Circulation and Transportation Plan reinforces the Future Land Use Plan. The functional Classification of roads, as outlined in the Inventory, considers the types of traffic that will be accommodated based on the design and service level that each road is intended to provide. Transportation and circulation patterns will continue to be crucial factors in the land use decision process. As development occurs in the Township and additional traffic is added to the road network, the functional classification of many roads will be impacted. Expected changes in the functional classification of a road

may be a result of projected development activity on adjacent or adjoining properties or of progressively increasing traffic observed on the road network. Changes in functional classification are based on current zoning practices and the potential development that could result. **Table 11-2** shows the existing and expected future functional classification of the primary roads in West Caln Township (a description of functional classifications is included in Chapter 6). While the functional classification of most major roads in the Township is expected to remain the same, some road segments may change. **Map 11-1** indicates future functional classification.

**TABLE 11-2**

**EXISTING AND FUTURE FUNCTIONAL CLASSIFICATION**  
**Functional Classification of Major Roads in West Caln Township**

<b>Road Name</b>	<b>Twp/State Road Number</b>	<b>Existing Function (1997)</b>	<b>Future Function (2020)</b>
Route 30 By-Pass	SR0030	Expressway	Expressway
Route 10	SR0010	Minor Arterial	<b>Major Arterial</b>
Route 340 (Kings Hwy.)	SR0340	Major Collector	<b>Minor Arterial</b>
Old Wilmington Rd.	SR4001	Minor Collector	<b>Major Collector</b>
Sandy Hill Rd.	T443	Minor Collector	Minor Collector
Bonsall Rd.	T409	Minor Collector	Minor Collector
Airport Rd.	T454	Local	<b>Minor Collector</b>
Hill Rd.	T439	Local	<b>Minor Collector</b>

Source: Pennsylvania Department of Transportation Roadway Management Information System (1996), Chester County Highway Needs Study (1990)

# Map 11-1

## Future Functional Classification

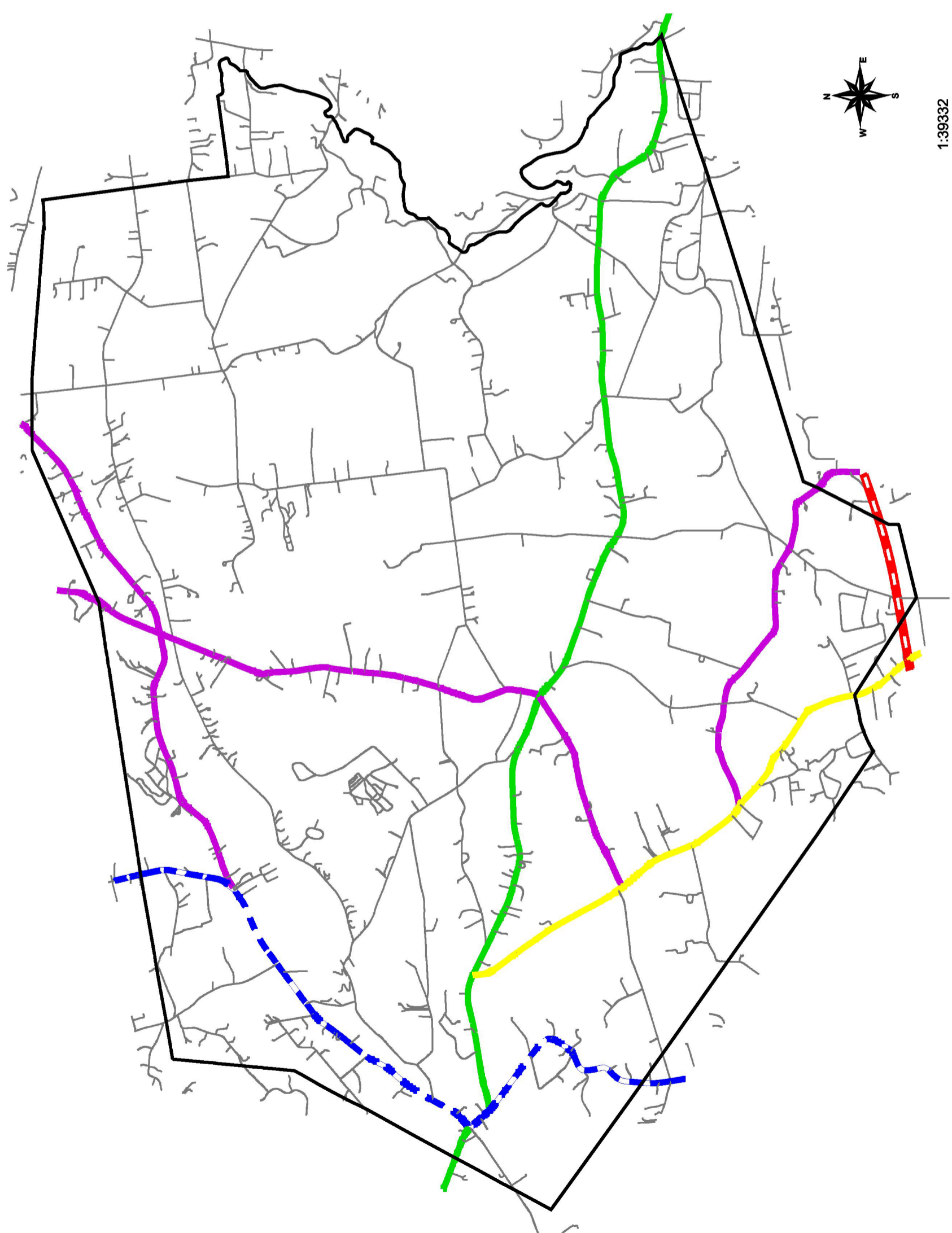
- Township Border
- Expressway
- Local
- Major Arterial
- Major Collector
- Minor Arterial
- Minor Collector

Data Source:  
Pennsylvania Department of Transportation Roadway Management Information System, 1996; Delaware Valley Regional Planning Commission Traffic Court Database, 1996.

Material used in the preparation of this map has been interpreted by Chester County Planning Commission staff from preliminary data sources. The material has not been processed for quality control and is only used for draft mapping purposes. The planimetric and cadastral data on this map cannot be used for any other purpose without the express approval of the County of Chester.

**WEST CALN TOWNSHIP**  
Chester County, Pennsylvania

Comprehensive Plan



**RECOMMENDATION:****Establish design standards for various road functions in the Subdivision and Land Development Ordinance.**

Including design standards in Township regulatory documents helps to ensure that road improvements occur in accordance with standard specifications. The Township should also explore the classification of local roads into primary and secondary distributors within the proposed Rural Center.

**INTERSECTION AND ROAD SEGMENT IMPROVEMENTS**

Based upon the West Caln Township Comprehensive Plan Task Force, Chester County Planning Commission Staff Field Survey (1990) and the Chester County Highway Needs Study (1990), several roadway improvements are suggested. The studies were conducted by recording existing roadway conditions using the following categories: bridge problems, deteriorated road surface, inadequate shoulders, intersection alignment problems, poor sight distances due to obstacles or grade, sharp curves, steep terrain and grades, structures near the road and unimproved roads.

To cite a few examples of existing road conditions in the Township, inadequate shoulders exist along several major roads, including Routes 340, Route 10 and Sandy Hill Road. Poor alignment problems occur along Route 340, Route 10, Martins Corner Road and Sandy Hill Road. Also, there are a number of poor sight distance problems present in the Township such as those at the intersections of Route 340 and Wagontown Road, Leary and Cambridge Roads, and Telegraph and Cambridge Roads.

Roadway improvements are recommended based upon their functional class as well as their status as either a state-owned or Township-owned road. Improvements are also based upon the scenic qualities of the road, if any. **Table 11-3** outlines suggested roadway improvements for short, midway and long range perspectives for major Township roads.

West Caln Township conducts maintenance and repairs on all roads owned by the Township. State liquid fuels funding is utilized for some of the road maintenance and improvement needs in West Caln, but does not encompass the cost of all road projects, as West Caln has a large inventory of local roads.

Roadway improvement programs should complement Township land use planning initiatives by targeting circulation improvements in areas of the Township where new development is planned to occur, such as areas adjacent to existing development.

**RECOMMENDATIONS:****Consider a multi-year road improvement program to budget for major improvements.**

Establishing a multi-year road improvement program can assist the Township in planning and budgeting for road maintenance and repair.

**Remain proactive when planning potential improvements to the road network as development continues.**

The effect of new development on the transportation network should be taken into consideration when site plans are reviewed. Traffic studies should be required to assess the impact of large scale development on the surrounding road network with improvements required at the time of construction.

**West Caln should consider adopting a twenty year comprehensive road maintenance program which details work to be accomplished on a short and long range basis for the entire Township.**

A long term program would help the Township to budget for road improvements and ensure that the quality of the roads do not deteriorate due to lack of maintenance.

**Continue to focus on regular road maintenance to ensure roads continue to meet local needs.**

Regular maintenance can prevent minor problems from becoming major repairs.

**TABLE 11-3**

**ROAD IMPROVEMENT RECOMMENDATIONS**  
**Recommended Modifications to Major Roads in West Caln Township**

<b>ROAD</b>	<b>ISSUE</b>	<b>LOCATION</b>	<b>SHORT-RANGE</b>	<b>MID-RANGE</b>	<b>LONG-RANGE</b>
<b>SR 0010</b> Compass Rd.	Poor alignment, obstacle	Hill Rd.	Signage	Minor realignment	Major realignment, remove obstacle
	Inadequate shoulders	Northern half of corridor	Signage	Minor shoulder repair	Major shoulder repair, guiderails
<b>SR 0340</b> Kings Hwy	Inadequate shoulders	Entire corridor	Signage	Minor shoulder repairs	Major shoulder repairs, guiderails
	Poor sight distance due to obstacle	Intersection of Wagontown Rd.	Signage	Minor sight distance improvements	Major sight distance improvements
	Poor alignment	Intersection of Sandy Hill Rd.	Signage	Minor road realignment	Major road realignment
<b>SR 0340</b> Kings Hwy	Sharp, steep curve causing sight distance problem	Intersection of Route 10	Signage, lower speed limit	Minor road improvement	Major road improvement
<b>T415</b> Martins Corner Rd.	Poor alignment	Cedar Knoll Rd.	Signage	Minor road realignment	Major road realignment
	Sharp curve	South of Wagontown Rd.	Signage	Minor road improvement	Major road improvement



<b>ROAD</b>	<b>ISSUE</b>	<b>LOCATION</b>	<b>SHORT-RANGE</b>	<b>MID-RANGE</b>	<b>LONG-RANGE</b>
	Unpaved road	Between Sandy Hill and Coffroath Rds.	Signage, lower speed limit	Compact road surface	Pave road surface
<b>T569</b> Wagontown Rd.	Sharp, steep curve	North of Water Works Rd.	Signage, lower speed limit	Minor road improvements	Major road improvements
<b>T454</b> Airport Rd.	Sharp curves, obstacles	West of S. Bonsall Rd.	Signage, lower speed limit	Minor road improvements	Major road improvements
<b>T459</b> Hatfield Rd.	Narrow, curving cartway	North of Route 340	Signage	Minor road improvements	Major road improvements
	Sharp curves	Intersection of Wagontown Rd.	Signage	Minor road improvements	Major road improvements
<b>T447</b> Leary Rd.	Poor sight distance	Intersection of Cambridge Rd.	Signage	Minor road improvements	Major Road improvements
<b>T455</b> Reservoir Rd.	One lane bridge	Intersection of Neal Road	Signage, lower speed limit	Minor Bridge Repair	Replace Bridge
<b>T435</b> Telegraph Rd.	Steep curves	West half of corridor	Signage, lower speed limit	Minor road improvements	Major road improvements
	Poor sight distance	Intersection of Cambridge Rd.	Signage	Minor road improvements	Major road improvements
<b>T443</b> Sandy Hill Rd.	Poor alignment	Intersection of Coffroath Rd.	Signage	Minor road improvements	Major road improvements
	Inadequate road shoulders	North of Route 340	Signage	Minor road improvements	Major road improvements

Source: Chester County Planning Commission  
West Caln Township Comprehensive Plan Task Force

## ACCESS MANAGEMENT

Access problems refer to situations in which the conflicts between access and mobility are, or will be, intense and result in congestion and safety problems. Access problems generally occur on roads serving high volumes of high-speed traffic in areas of intense, trip-generating land uses. In West Caln Township, access problems currently exist along Route 10 (Octorara Tr.), Route 340 (Kings Hwy.) and Old Wilmington Road, which is characterized by driveways and other points directly accessing the roadway. The situation could become more serious in the future if traffic levels increase. This condition tends to result in an unsafe roadway due to vehicles entering and exiting the traffic flow, and tends to decrease the efficiency of the roadway by slowing down movement.

The Chester County Highway Needs Study provides a list of suggested improvement options to help mitigate existing access problems and to prevent access problems from occurring in the future. The following guidelines may be applied to those roads cited above as having access problems and may be incorporated in the Township plan review process:

- Reduce the number of access points and channel access to the primary road.
- Relocate access points and shift access points to a safer, more convenient location.
- Combine access points by consolidating the driveways of adjacent properties (shared driveways).
- Require side access and the interconnection of adjacent properties in lieu of additional access points on the primary road.
- Create one-way patterns for property access to include one ingress-only and one egress-only driveway in lieu of two-way driveways.
- Require acceleration and deceleration lanes for areas with moderate or high-volume turning traffic.
- Establish reverse frontage access to allow for safer access to adjoining properties.
- Require internal circulation roads to reduce back-ups and safety problems on the primary road.
- Prohibit parking near access points to increase turning speeds and improve sight distances.
- Require driveway paving to increase turning speeds.
- Require installation of curbing or physical barriers along property frontage where no control of access exists.

### ***RECOMMENDATIONS:***

**A comprehensive access management plan for the roadways in West Caln should be created to establish Township policy concerning driveways and other access points related to both proposed and existing development.**

The roads which currently warrant access management measures in the Township are primarily: Route 340 (Kings Highway), Route 10 (Octorara Tr.) and Old Wilmington Road.

**Participate in the PennDOT Permit Review Process as a means of planning and controlling access to major roads throughout the Township.**

The Township may enter into an agreement with PennDOT to review all requests for access permits, providing the opportunity for local input. Entering into such an agreement would give the Township a formal role in the permitting process and allow for a higher level of coordination.

**FIGURE 11-1  
RURAL DESIGN CRITERIA**

		FUNCTIONAL CLASSIFICATION SYSTEMS ①															
		INTERSTATE AND OTHER LIMITED ACCESS FREEWAYS						COLLECTORS AND LOCAL ROADS ②									
Design Speed (MPH) ④	Level Rolling Mountainous	ARTERIALS		DIV 201 to 400		DIV 401 to 700		Current ADT Over 400		Current ADT 251 to 400		Current ADT 51 to 250		Current ADT 50 and Under			
		70	60	50	Call	L.R.	Call	L.R.	Call	L.R.	Call	L.R.	Call	L.R.	Call	L.R.	
Pavement Widths (Feet) ⑦ ⑧	4 or More 12'-0" Lanes Divided ⑨	70	70	70	60	50	30	30	30	30	30	30	30	30	30	30	
		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
		50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Shoulder Widths	10'-0" Right Shoulder ⑬ 8'-0" Graded, 4'-0" Paved ⑭ Left Shoulder (Medians Only)	See Note ⑭		6'-0" Min.		6'-0" Min.		4'-0" Min.		4'-0" Min.		4'-0" Min.		2'-0" Min.			
		60'-0" to 90'-0" (Des.) 36'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮		60'-0" (Des.) 4'-0" (Min.) ⑮			
Median Widths ⑯	Cross Slopes	0.00 H/L%		0.02 H/L%		0.02 H/L%		0.02 H/L%		0.02 H/L%		0.02 H/L%		0.02 H/L%		0.02 H/L%	
		3%		4%		5%		6%		7%		8%		9%		10%	
		4%		5%		6%		7%		8%		9%		10%		11%	
		5%		6%		7%		8%		9%		10%		11%		12%	
Vertical Curves ⑰	Design Speed Level Rolling Mountainous	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	30 MPH ⑰	
		40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰	40 MPH ⑰
		50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰	50 MPH ⑰
		60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰	60 MPH ⑰
Horizontal Curves	Design Speed Level Rolling Mountainous	3'-00"	3'-00"	3'-00"	4'-45"	4'-45"	7'-30"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	
		4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"
		7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"	7'-30"
		4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"	4'-45"
Sight Distances (Feet) ⑱	Design Speed Min. Skipping Min. Feeding	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	30 MPH ⑱	
		40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱	40 MPH ⑱
		50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱	50 MPH ⑱
		60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱	60 MPH ⑱
Guide Rail and Median Barrier	Clear Zone Widths ⑳	See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12			
		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12		See DM-2, Chapter 12			
		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒		Pavement Width Plus Right Shoulder Plus 6'-0" Left Shoulder ㉑ ㉒			
		16'-0" Min., See DM-4		16'-0" Min., See DM-4		16'-0" Min., See DM-4		16'-0" Min., See DM-4		16'-0" Min., See DM-4		16'-0" Min., See DM-4		16'-0" Min., See DM-4			
Vertical Clearances	Right-of-way Widths	See Note ㉓		See Note ㉓		See Note ㉓		See Note ㉓		See Note ㉓		See Note ㉓		See Note ㉓			
		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM			
Levels of Service		See Note ㉔		See Note ㉔		See Note ㉔		See Note ㉔		See Note ㉔		See Note ㉔		See Note ㉔			
		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM		See 1983 HCM			

Source: RoadDOT, Guidelines for the Design of Local Roads and Streets, 1990.

## RURAL DESIGN CRITERIA NOTES

### (Footnotes to Figure 11-1)

- 1 Where minimum values are indicated, higher values should be strived for where conditions of safety dictate and costs can be supported.
- 2 Criteria for Local Roads is not applicable to Federal-aid systems and only applies to Federal-aid off system projects.
- 3 Design hourly volume (DHV) twenty (20) years in the future. For a current average daily traffic (ADT) over 400, a projected twenty (20) year design hourly volume (DHV) shall be used.
- 4 Design speeds for Collectors and Local Roads represent minimum values.
- 5 Major collectors with a current ADT of 400 and under shall be designed based on a current ADT over 400.
- 6 Design speeds less than 30 MPH are recommended only under special circumstances where a higher design speed would create unusual problems.
- 7 Railroad grade crossing paving shall extend two (2) feet beyond the extreme rails for the full grade width of the highway.
- 8 Ten (10) foot wide auxiliary lanes may be used.
- 9 Number of lanes as determined by lane capacity design for selected Level of Service.
- 10 Allow two (2) foot additional (desirable) adjacent to curbs, one (1) foot minimum.
- 11 Under restrictive or special conditions, such as right-of-way or lateral clearance limitations, eleven (11) foot lanes are acceptable.
- 12 Use twelve (12) foot right shoulder with ten (10) foot paved where DHV is equal to or greater than 250 Trucks.
- 13 For three or more lanes directional facilities, the left shoulder equals ten (10) feet and preferably twelve (12) feet where DHV is equal to or greater than 250 Trucks.
- 14 Provide shoulder widths as follows:  
DHV over 400 10 Ft. (see Note 12) ADT over 400 6 Ft.  
DHV 201 to 400 8 Ft. (see Note 12) ADT  $\leq$  400 4 Ft.
- 15 All median widths twenty (20) feet or less should be paved. When Type 1 shoulders are specified for the four (4) foot Median Shoulders, Type 3 shoulders may be used for the remainder if the remaining width is eight (8) feet or greater. In built up rural areas where urban conditions exist, urban criteria may be used.
- 16 Median widths fourteen (14) to twenty-two (22) feet are desirable where a lane is provided in the median for protection for left-turning vehicles at intersections.
- 17 Provide for separate grades and alignment when conditions permit.
- 18 For short grades less than five hundred (500) feet and for one-way downgrades, maximum grades may be adjusted steeper by one (1) percent.
- 19 When only two (2) lanes are to be constructed initially, provide for passing sight distances.
- 20 Center piers are not desirable. Piers may be provided in medians of thirty-six (36) feet or more. Increase span where necessary to provide for required horizontal stopping sight distance. Provide clearance for guide rail in front of substructures if protection is required.
- 21 Where paved or curbed parking lanes exist or have been approved for construction on approaches, the clear roadway width of the proposed bridge in each case shall be determined by the Central Office Bureau of Design upon receipt of the District's recommendation.
- 22 On curbed approaches, the minimum bridge width may equal the curb-to-curb width. Where pedestrian traffic is anticipated, provisions for a sidewalk, preferably on the outside of the parapet, should be considered and shall meet the Department's Standards and requirements (see DM-2, Chapter 6).
- 23 Selection of single or dual structures shall be made based on economic analysis. Such items as structure length and width, horizontal and vertical curvature and ramp geometry shall be considered.
- 24 Provide twelve (12) foot left shoulder for bridges carrying three or more through lanes. Auxiliary lanes shall not be counted as through lanes.
- 25 Use two (2) foot minimum to six (6) foot desirable left shoulder if median is provided.
- 26 For a design speed less than 50 MPH and a current ADT of 400 and under, a minimum curb-to-curb bridge width of pavement width plus four (4) feet may be used.
- 27 No minimum right-of-way width is suggested. The procurement of sufficient right-of-way width should be based on the preferable dimensions for all the elements of the composite highway cross section and should be adequate to accommodate the construction and proper maintenance of the highway throughout the project. Future widening should be considered and, where needed for safety, additional right-of-way may be required for adequate sight distance. For additional information on right-of-way widths, refer to the AASHTO Green Book, Chapters VI, VII and VIII.

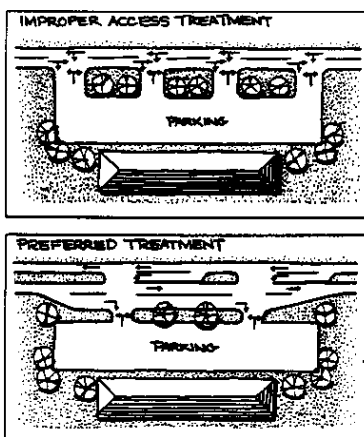
**FIGURE 11-2****ACCESS MANAGEMENT TECHNIQUES**

Access management techniques involve strategies which serve to reduce the number of traffic conflicts associated with driveways and to enhance the safe and efficient movement of traffic. The U.S. Department of Transportation identifies four major objectives essential to access management strategies.

- 1) Limit the number of conflict points. These techniques directly reduce the frequency of encroachment conflicts, or reduce the area of conflict at driveways on the highway by limiting or preventing certain kinds of maneuvers.
- 2) Separate basic conflict areas. These techniques either reduce the number of driveways or directly increase the spacing between driveways or between driveways and intersections.
- 3) Improve deceleration design. These techniques reduce the severity of conflicts by increasing driveway turning speeds, decreasing delay to through trips, or by increasing driver perception time.
- 4) Remove turning vehicles from the through lanes. These techniques directly reduce both the frequency and severity of conflicts by providing separate paths and storage areas for turning vehicles.

Additional techniques include the traffic signal timing procedures:

- Regularly monitor and adjust timing to optimize traffic flow;
- Install volume-density controls to utilize green time on side streets;
- Establish variable phasing for different times of the day;
- Interconnect signals to improve traffic flow; and
- Install time based coordination to optimize traffic flow.



Source: Chester County Planning Commission, 1993.

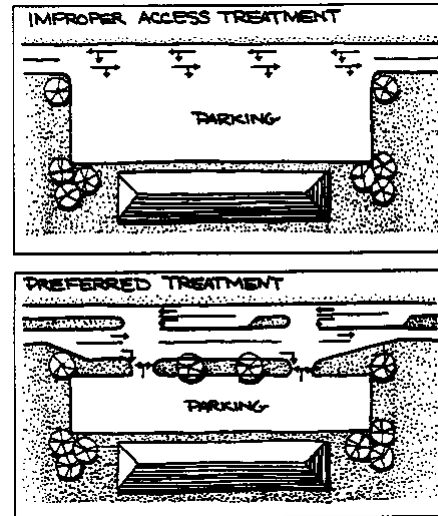
**Reducing the Number of Access Points**

Reducing the number of access points decreases the accident rate by minimizing the number of traffic conflicts. Having fewer access points can improve the ability to provide channelization.

## ACCESS MANAGEMENT TECHNIQUES

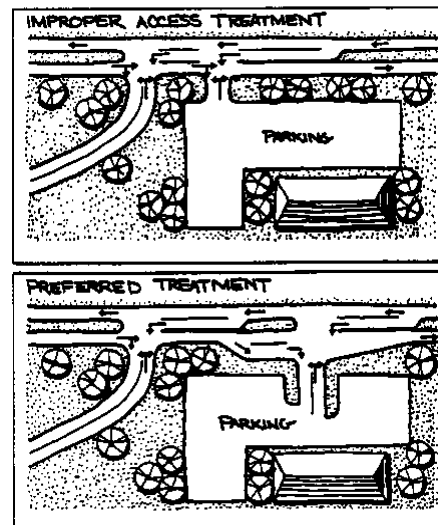
### Channelize Access Points

Turning movements to and from large parcels with no access control lead to rear-end accidents, side-swipe accidents and vehicle queuing on the adjacent road. Providing access controls and separate turning lanes reduces driver confusion and improves the capacity of the adjacent road.



### Relocate Access Point Away from Intersection

Moving the access point away from the adjacent intersection allows for a separation of conflicting movements, thereby decreasing the accident rate. It also provides a better opportunity to channelize the adjacent intersection and the access point.

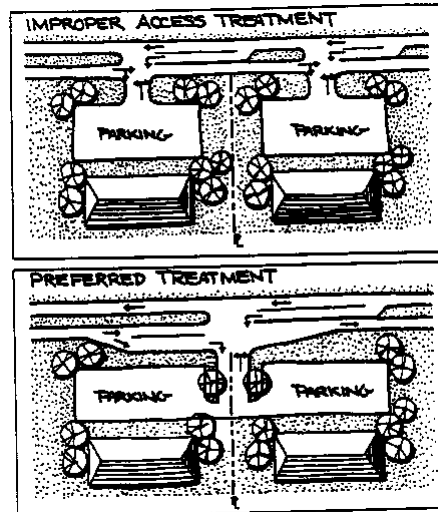


Source: Chester County Planning Commission, 1993.

## ACCESS MANAGEMENT TECHNIQUES

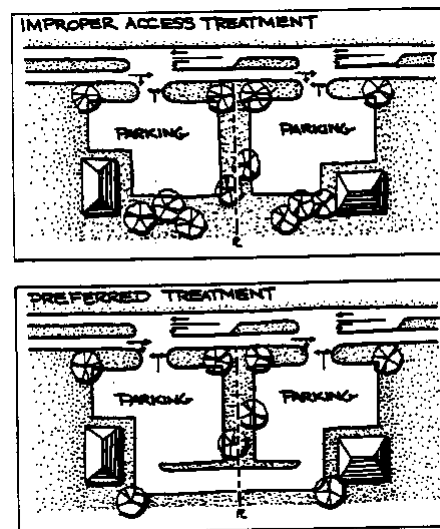
### Combine Access Points

Combining access points of adjacent parcels reduces the number of access points, thereby decreasing the accident rate. This treatment requires an easement which delineates maintenance responsibilities.



### Provide Access between Adjacent Parcels

Providing access between adjacent parcels allows vehicles to move from one parcel to another without using the adjacent road.

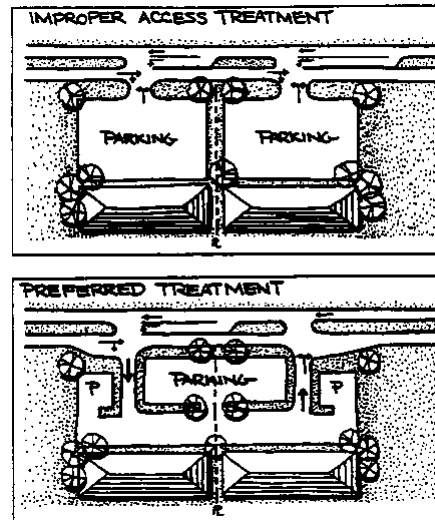


Source: Chester County Planning Commission, 1993.

## ACCESS MANAGEMENT TECHNIQUES

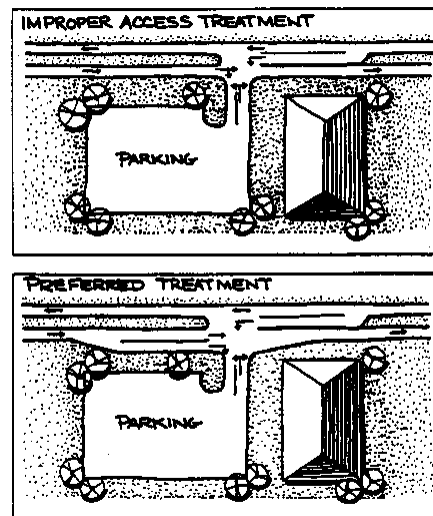
### Create One-Way Traffic Pattern

Creating a different access for ingress and egress separates conflicting movements, decreases the accident rate and improves driveway capacity.



### Provide Deceleration Lane and Acceleration Taper

Providing a deceleration lane for right turn movements reduces the number of rear-end accidents and improves capacity on the adjacent road. An acceleration taper increases sight distances and provides a safety zone.



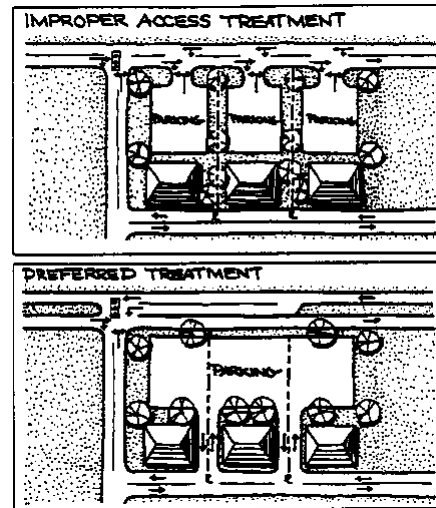
Source: Chester County Planning Commission, 1993.



## ACCESS MANAGEMENT TECHNIQUES

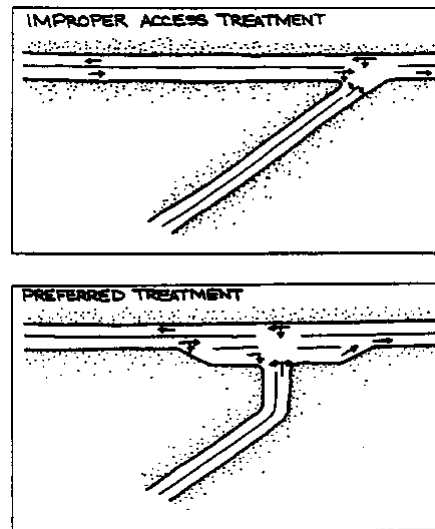
### Reverse Frontage Road

Access on the reverse frontage road decreases the accident rate on the primary road by eliminating access points and by focusing turning movements to channelized, signalized intersections.



### Realign Access Point

A right-angle intersection decreases the accident rate by improving the approach angle for sight distance and providing better turning radii for vehicles.

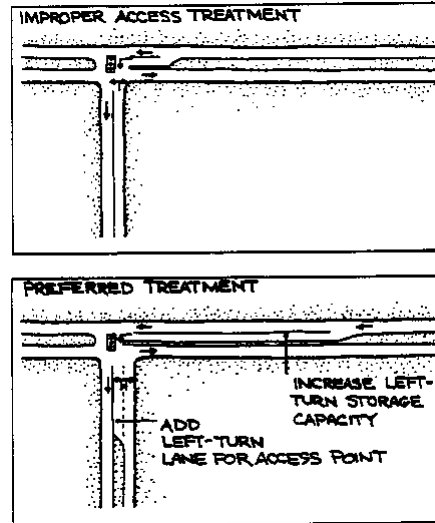


Source: Chester County Planning Commission, 1993.

**ACCESS MANAGEMENT TECHNIQUES**

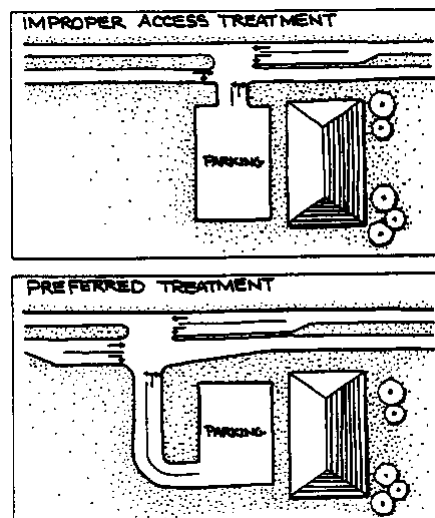
**Modify Left Turn Movements**

Providing additional left-turn storage areas into and out of an access point decreases the accident rate and improves the capacity of the adjacent road and the access point.



**Improve Access to Parking Lot**

A deceleration lane and a stacking area leading to the parking lot decrease the accident rate by minimizing the conflicts between: through vehicles on the adjacent road, vehicles turning into the parking lot and vehicles moving in or out of parking spaces.



Source: Chester County Planning Commission, 1993.

**PUBLIC TRANSPORTATION:**

The Chester County Airport (G.O. Carlson Airport) in Valley Township is a publicly owned airport which accommodates single, twin and jet engine aircraft. It also provides daily commuter flights to and from Philadelphia International Airport for commercial flight services.

Bus service for West Caln is provided from Coatesville via Krapf's Coach Line to and from Exton, and the Boroughs of Downingtown and West Chester. Airport and luxury limousine service is available seven days a week from Coatesville. Chester County Paratransit provides ambulatory and non-ambulatory van service during the weekday hours for elderly and handicapped riders.

AMTRAK provides rail service from Parkesburg and Coatesville to Downingtown, Exton, Philadelphia and Harrisburg. There is a proposal by SEPTA to develop a station in Thorndale. Freight rail service in Chester County is served primarily by Conrail which maintains lines along Route 30 through the center of the County to the south of West Caln Township.

**Regional Transportation**

An important aspect of transportation planning is that of regional cooperation. Many of the most significant influences on traffic within West Caln Township are located outside its jurisdiction. In many instances, internal circulation planning may have little, if any impact on these external influences. West Caln Township should pursue regional planning in cooperation with surrounding municipalities wherever possible to address these larger transportation issues. Examples of regional planning include coordinated access management or cooperation on large development proposals which may affect the region.

***RECOMMENDATION:***

**Cooperate with PennDOT, adjacent municipalities and other government agencies to ensure local needs are represented to address road issues which have a regional impact.**

Planning for an effective circulation system requires regional cooperation. The Township should seek to participate in regional planning efforts that involve transportation, as well as other issues, that could impact residents of West Caln and affect future land use.

**Scenic Roads**

The West Caln Township landscape is a rich scenic resource. The roads that transverse this resource are also of scenic value. These roads offer two fundamental scenic experiences. They provide physical as well as visual access to the varied landscape of the Township. The roads in themselves are also of scenic quality. The West Caln Township Open Space, Recreational and Environmental Resources Plan has identified and inventoried the scenic road resources throughout the Township. The Plan places these roads into two categories, Scenic Roads through Farmland and Scenic Roads through Woods. Included in the Plan is a detailed map of all scenic road resources in the Township. The Plan also notes that scenic road segments in the Township are not isolated, but often connect to other scenic road segments, which creates a real opportunity to protect this resource. There are a number of recommended protection measures available to the Township for protecting this resource. The Plan maintains that the Township should consider the following:

***RECOMMENDATIONS:*****Resist pressures to widen, straighten or otherwise "improve" scenic roads to satisfy increasing traffic volumes.**

Widening and straightening scenic roads often destroy roadside vegetation and fundamentally alter the experience of traveling them.

**Protect scenic quality of roads.**

Circulation improvements need not conflict with preserving the scenic quality of roads. When roads must be improved to address circulation needs, traffic should be directed toward non-scenic roadways.

**Revise zoning and subdivision regulations to consider measures requiring the consideration of scenic road qualities in the development review process.**

Encourage conservation through design or density trade-off for buffering, by clustering structures in areas least likely to impact the view from the road, through preservation of old trees and high banks, or by minimizing road cuts.

**Funding Opportunities**

Once the issues have been identified in the Township, the available funding sources for those improvements must be examined. **Table 11-4** shows several possible sources of highway improvement funds. It is also the case, however, that funding is in short supply, and highway improvement projects are therefore evaluated by the degree of urgency and necessity of the project for the community when public funds are involved.

TABLE 11-4

**FUNDING SOURCES FOR ROAD IMPROVEMENTS**  
**Information on Grant Programs Available for Road Improvements**

<b>TITLE/ SOURCE</b>	<b>TYPES OF ELIGIBLE PROJECTS</b>	<b>FUNDING SPLIT</b>	<b>CRITERIA</b>	<b>REQUIRED PROGRAMMING</b>	<b>FUNDING LEVEL</b>
National Highway System (NHS) Federal ISTEA	Construction or reconstruction of Major Roads	80% Federal 20% State	Roads must be on the Designated National Highway System (NHS)	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	PA Apportion for FY 1997: \$136 Million
Surface Trans. Program (STP) Federal ISTEA	Construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements for highways and bridges; transit capital costs; and travel demand reduction improvements	80% Federal 20% State or 80% Federal 20% Local	For use on any roads which are not classified as local or rural minor collectors	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	PA Apportion for FY 1997: 47.4 Million
Safety Component of STP Federal ISTEA	Various types of safety improvements which mitigate documented safety problems	80% Federal 20% State	For use on any roads which are not classified as local or rural minor collectors	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	Apportion included in STP funding level
Transportation Enhancement Activities Federal ISTEA	Bicycle and pedestrian facilities; acquisition of scenic easements and scenic or historic sites; landscaping and beautification; and other environmental related programs	80% Federal 20% State or 80% Federal 20% Local	For use on any roads which are not classified as local or rural minor collectors	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	State Allocation is 10% of STP Allocation
Congestion Mitigation and Air Quality Improvements (CMAQ) Federal ISTEA	Construction, reconstruction or rehabilitation of bridges	80% Federal 20% State or 80% Federal 20% Local	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget		PA Apportion for FY 1997: \$255 Million

<b>TITLE/ SOURCE</b>	<b>TYPES OF ELIGIBLE PROJECTS</b>	<b>FUNDING SPLIT</b>	<b>CRITERIA</b>	<b>REQUIRED PROGRAMMING</b>	<b>FUNDING LEVEL</b>
Toll Roads Federal ISTEA	Projects which contribute to meeting the attainment of National Air Quality Standards; Eligible Projects to be determined by USDOT Secretary	80% Federal 20% State	Projects must be part of a congestion mitigation air quality plan	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	PA Apportion for FY 1997: \$58.9 Million
Community Development Block Grant (CDBG) Federal	Construction and rehabilitation of toll facilities including roads, bridges and tunnels	80% Federal 20% State or 80% Federal 20% Local	For use on publicly owned facilities and in some cases privately owned facilities, permits State to use toll facility to finance its share of the project	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual apportion.
Advanced Construction Federal NHS Act	Construction and rehabilitation of streets, bridges, pedestrian facilities and parking facilities	100% Federal Department of Housing and Urban Development	Project must benefit low-to-moderate income households	Approval from County Office of Housing and Community Development and State Bureau of Housing and Development	To be determined
	Any Federal Aid Project	80% Federal 20% State	State has obligated all apportioned funds for project, used full obligation authority or can demonstrate use	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual allocation
Flexible Match (Donations) Federal NHS Act	Any Federal Aid Project	80% Federal 20% State	Donations must be from third party, donations must be made after project approval, and it meets eligibility requirements of project	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual allocation
ISTEA Section 1012 Loans Federal NHS Act	Any Federal Aid Toll or Non-Toll Project	80% Federal 20% State	Must have dedicated revenue source for repayment of loan	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual allocation

<b>TITLE/ SOURCE</b>	<b>TYPES OF ELIGIBLE PROJECTS</b>	<b>FUNDING SPLIT</b>	<b>CRITERIA</b>	<b>REQUIRED PROGRAMMING</b>	<b>FUNDING LEVEL</b>
ISTEA Section 1044 Toll Credits Federal NHS Act **NOT yet adopted by PennDOT	Federal or Highway, Bridge or Tunnel Infrastructure Projects	80% Federal 20% State	Must be used as credit toward programs authorized by title 23 and ISTEA	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	Based on revenues generated by the Toll Authority
State Infrastructure Bank Federal NHS Act ** PA has applied	Surface Transportation Projects including Transit Capital Projects	80% Federal 20% State	Must have preliminary engineering and environmental assessment completed and have revenue stream for debt	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget, SEPTA Capital Program	25% of Federal Obligation Allocation and 5% State Match
Safety and Mobility Initiatives (SAM) State	Various types of safety and capacity improvements	80% Federal 20% State	For use on State roads with high accident rates	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual allocation
Bridges State	Construction, reconstruction or rehabilitation of State or municipal bridges	100% State or 80% State 20% Local	For use on State, County or Municipal bridges	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget	No individual allocation
Maintenance State	Resurfacing, potholes, winter program, signs, bridge repairs and operations of PennDOT's Office in the County	100% State	State road and bridge only; allocation based on legislative formula	Approval from PennDOT's Maintenance Office	1996 County Allocation: 19.6 Million
Betterment or "3-R" State	Minor reconstruction or major resurfacing of roads and bridges	80% Federal 20% State or 100% State	For use on State roads	PennDOT 12 Year Program, DVRPC TIP (If Federal funds are to be used)	No individual allocation
Transportation Partnerships State/ Municipal	Various safety and capacity improvements	Federal or State shares varies by project	Based on the requirement of State Act 47 of 1985	PennDOT 12 Year Program, DVRPC TIP (if Federal funds are to be used)	No individual allocation
Cooperative Agreements State/ Municipal	Limited safety or maintenance improvements	Materials provided by PennDOT labor provided by Municipality	State roads only; less than \$5,000 cost	Approval from PennDOT's Maintenance Office	No individual allocation

<b>TITLE/ SOURCE</b>	<b>TYPES OF ELIGIBLE PROJECTS</b>	<b>FUNDING SPLIT</b>	<b>CRITERIA</b>	<b>REQUIRED PROGRAMMING</b>	<b>FUNDING LEVEL</b>
Liquid Fuels Funds State/ Municipal	Construction, reconstruction or maintenance of municipal roads and bridges	100% State	Road must be on the Liquid Fuels Network	Municipal budget and PennDOT's Liquid Fuels Program	Estimated annual allocation for 1997: \$6.49 Million
Traffic Impact Fees State/ Municipal/ Developer	Capacity improvement as defined in land use and traffic studies conducted by the municipality	Funding share is determined in the Capital Improvement Plan	Based on requirement of State Act 209 of 1990	Municipal Capital Improvement Plan, PennDOT 12 Year Program, DVRPC TIP (If Federal funds are to be used)	No individual allocation
Bridges State/County	Construction, reconstruction, rehabilitation or maintenance of bridges	100% Liquid Fuels Funds	For use on County bridges	County Engineers Program	Total annual allocation for County for 1996: \$565,429
Debt Financing Municipal	Various capacity, safety or maintenance improvements as defined by appropriate statutes	100% Municipal	Projects must be approved by governing body and in some cases by electorate	Municipal Budget	Determined by Municipality; limits on indebtedness
General Fund Municipal	Various capacity, safety or maintenance improvements as defined by appropriate statutes	100% Municipal	Projects must be approved by governing body; restrictions are listed in municipal code	Municipal Budget	Determined by Municipality

Source: Compiled by the Chester County Planning Commission

Improvements involving state-owned roads must be submitted to the Chester County Planning Commission and the local PennDot District. An estimate of the project cost is determined and the proposal is included on the County Highway Improvements Inventory. The proposal then must be placed on the PennDOT Twelve Year Highway Plan and be endorsed by the County prior to receiving any state funding. If the project involves the use of federal funding, the proposal must also be included on the regional listing of projects recommended by the Delaware Valley Regional Planning Commission in the Transportation Improvement Program (TIP).



## Chapter Twelve

### SUMMARY AND IMPLEMENTATION STRATEGY

The purpose of this chapter is to summarize the plan recommendations and provide information on implementation. The summary is presented in table form with the goals, and the recommendations addressing these goals, identified by plan element. Along with each recommendation a suggested priority is listed, as well as the entity responsible for implementation, an implementation tool and the page reference indicating where explanatory information can be found.

#### **Plan Recommendations**

The recommendations are summarized in table form and categorized by the four plan elements: Future Land Use and Housing Plan, Natural and Historic Resources Conservation Plan, Community Facilities Plan, and Transportation and Circulation Plan. The recommendations are categorized in this fashion to illustrate the linkage between the action and the goals they are intended to address. Since the table includes the page number of the recommendations, it serves as a general index as well.

#### **Priority**

Each recommendation is prioritized as Immediate, Short-term, Long-term or On-going. The intent of this prioritization is to give general direction on the urgency of addressing the issue. The definition of each category is as follows:

**Immediate:** An immediate priority is one which should be implemented within one to two years of plan adoption. Recommendations identified as immediate priorities are those intended to address an issue of high current concern.

**Short-term:** A short-term priority is one which should be implemented within three to five years of the plan adoption. These recommendations may require a higher degree of preliminary investigation before an implementation mechanism can be put into place.

**Long-term:** A long term priority may be implemented within five to ten years of the plan adoption. Recommendations with this designation may require a significant amount of time to implement, or they may not carry the same degree of urgency as other actions.

**On-going:** An on-going priority is one that is already being implemented at some level and greater attention should be placed on this implementation into the near future.

#### **Implementation**

This part of the summary indicates the entity or entities largely responsible for implementing the recommendations. This reference does not imply that the entity identified is solely responsible for addressing the recommendation, only that they should be accountable for initiating and/or monitoring its progress. Nearly all of the recommendations require some level of oversight by the Board of Supervisors.

Citizen involvement in implementation of the Comprehensive Plan Update is an important component not specifically identified in the table. Implementation of each recommendation should include a role for citizens to ensure that all views are addressed. The use of a Special Planning Task Force is suggested for a number of the recommendations and is a positive way of encouraging citizen input and participation in the planning process. Most of the recommendations identify one or more of the following as the responsible entity:

- Board of Supervisors
- Planning Commission
- Township Staff
- Agricultural Preservation Board
- Historical Commission
- Park and Recreation Commission
- Special Planning Task Force
- Zoning Hearing Board
- Police Department
- Fire Companies

### **Implementation Tool**

Many of the recommendations must be implemented by amending or modifying a municipal regulatory document. It should be noted that in order to implement some of the recommendations, more than one regulatory document may need to be modified. For instance, a provision may be added to the Subdivision and Land Development Ordinance, but standards may also need to be included in the Zoning Ordinance. When addressing the recommendations, it is particularly important to maintain consistency among the regulatory documents. The municipal documents include, but are not limited to, the following:

- Zoning Ordinance
- Subdivision and Land Development Ordinance
- Sewage Facilities Plan

### **Reference Page**

The summary table includes a page reference where more specific information on the recommendation can be found.

TABLE 12-1

## SUMMARY OF RECOMMENDATIONS AND IMPLEMENTATION STRATEGY

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>FUTURE LAND USE AND HOUSING</b>				
<p><b>GOAL: Preserve the rural character of the Township by protecting those natural, scenic and historic features that contribute to that unique character and the local quality of life.</b></p> <p><b>GOAL: Preserve agricultural land and prime soils, thereby supporting the agricultural industry in the Township.</b></p> <p><b>GOAL: Allow for orderly commercial and industrial development that meets the current and future needs of Township residents and contributes to the Township's economic vitality.</b></p> <p><b>GOAL: Provide for the development of a variety of housing types and encourage innovative and creative site design that seeks to retain the landscape's natural and historic features.</b></p>				
<i>Rural Residential Land Use Category:</i>				
<p><b>Recommendation:</b> Promote cluster development and lot averaging through zoning, and consider including incentives for the use of this technique in land development.</p>	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-15
<p><b>Recommendation:</b> Encourage the submission of sketch plans prior to preparation of formal subdivision applications.</p>	Immediate	Planning Commission	Subdivision and Land Development Ordinance	PP 8-15
<i>Site Responsive Residential Land Use Category:</i>				
<p><b>Recommendation:</b> Develop conservation zoning for the protection of fragile resources.</p>	Immediate	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-16
<p><b>Recommendation:</b> Reduce development of fragile lands by excluding the land area from density calculations.</p>	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-17

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Recommendation:</b> Consider developing an educational program that advises residents on the importance of periodic testing of well water.	Immediate	Board of Supervisors Planning Commission Township Staff		PP 8-17
<b>Recommendation:</b> Encourage flexibility in site design by allowing cluster development as a by-right use in the zoning ordinance.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-17
<b><i>Agricultural Conservation Land Use Category:</i></b>				
<b>Recommendation:</b> Consider effective agricultural zoning that protects farm land and prime soils; however, this must not be at the expense of landowners.	Immediate	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-18
<b>Recommendation:</b> Consider expanding use opportunities in agricultural areas to allow for additional farm-related or secondary businesses.	Short-Term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-19
<b>Recommendation:</b> Investigate establishing a Transferable Development Rights program.	Short-Term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-19
<b><i>Rural Center Land Use Category:</i></b>				
<b>Recommendation:</b> Consider establishing a rural center zoning district with distinct boundaries that foster creative, innovative residential development at densities that create neighborhoods and a sense of community, and discourage sprawling, uniform development patterns.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-20

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Recommendation:</b> Consider development of a master site plan for the area within the rural center land use category that can be translated into an Official Map.	Short-term	Board of Supervisors Planning Commission Special Planning Task Force		PP 8-21
<b>Recommendation:</b> Encourage planned, unified developments that create neighborhoods while simultaneously meeting recreational and open space needs.	Short-term	Planning Commission	Zoning Ordinance	PP 8-21
<b>Recommendation:</b> Encourage the use of traditional design concepts such as the grid development pattern, central square and through streets in new development proposed for the rural center.	Short-term	Planning Commission	Zoning Ordinance, Subdivision and Land Development Ordinance	PP 8-21
<b><i>Village Land Use Category:</i></b>				
<b>Recommendation:</b> Consider developing a village overlay zoning district that protects the village pattern.	Long-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-22
<b>Recommendation:</b> For new residential development, consider requiring development that emulates the traditional patterns and protects the viewsheds.	Long-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-22
<b><i>Limited Industrial Land Use Category:</i></b>				
<b>Recommendation:</b> Consider establishing a limited industrial zoning district.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 8-23

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>NATURAL AND HISTORIC RESOURCES CONSERVATION</b>				
<b>GOAL: Preserve the rural character of the Township by protecting those natural, scenic and historic features that contribute to that unique character and the local quality of life.</b>				
<b>GOAL: Preserve agricultural land and prime soils, thereby supporting the agricultural industry in the Township.</b>				
<b>GOAL: Use new and innovative land management tools and technique to promote the preservation and protection of natural, scenic and historic resources.</b>				
<b><i>Prime Agricultural Soils:</i></b>				
<b>Recommendation:</b> Protect prime agricultural soils and the agricultural industry by limiting development of farmland.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 9-2
<b>Recommendation:</b> Encourage the use of soil conservation measures on agricultural land to reduce erosion and minimize topsoil loss.	Short-term	Agricultural Preservation Board		PP 9-2
<b>Recommendation:</b> Encourage participation in the Agricultural Security Area Program.	On-going	Agricultural Preservation Board		PP 9-2
<b>Recommendation:</b> Encourage the use of Act 319 and Act 515 provisions as a way of retaining important agricultural land.	On-going	Agricultural Preservation Board		PP 9-3
<b><i>Vegetation Conservation:</i></b>				
<b>Recommendation:</b> Consider requiring a Vegetation Management Plan to be submitted with development proposals.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance, Subdivision and Land Development Ordinance	PP 9-3

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Recommendation:</b> Consider controlling erosion and stream sedimentation by ensuring compliance with adopted stormwater management measures.	Immediate	Township Staff		PP 9-3
<b>Recommendation:</b> Coordinate with the Chester County Conservation District on issues relating to stormwater management and erosion control.	Immediate	Township Staff		PP 9-4
<b>Recommendation:</b> Ensure that sketch plans, when submitted as part of the subdivision and land development review process, address protection of vegetation existing on the site.	Short-term	Planning Commission	Subdivision and Land Development Ordinance	PP 9-4
<b><i>Water Resource Conservation:</i></b>				
<b>Recommendation:</b> Consider measures that "net-out" flood plain from lot areas.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 9-4
<b>Recommendation:</b> Consider wetlands protection measures.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 9-4
<b>Recommendation:</b> Investigate the adoption of a water withdrawal ordinance.	Long-Term	Planning Commission Special Planning Task Force		PP 9-5
<b><i>Historic Resources Protection:</i></b>				
<b>Recommendation:</b> Consider developing a comprehensive historic preservation program to be administered by the West Caln Township Historical Commission.	Long-Term	Board of Supervisors Planning Commission Historical Commission		PP 9-5
<b>Recommendation:</b> Consider undertaking a comprehensive survey of historic resources.	Long-term	Historical Commission		PP 9-5

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Recommendation:</b> Seek funding for a comprehensive historic resources survey from the Pennsylvania History and Museum Grant program.	Long-term	Historical Commission		PP 9-6
<b>Recommendation:</b> Use survey data to evaluate historic resources.	Long-term	Historical Commission		PP 9-6
<b>Recommendation:</b> Consider establishing an historic district in the Zoning Ordinance.	Long-term	Board of Supervisors Planning Commission Historical Commission	Zoning Ordinance	PP 9-6
<b>Recommendation:</b> Encourage the preparation of National Register nominations to give recognition to important local resources.	Long-term	Historical Commission		PP 9-6
<b>Recommendation:</b> Provide information and support education programs that encourage the preservation and rehabilitation of historic properties.	Short-term	Historical Commission		PP 9-7
<b>Recommendation:</b> Consider developing a Village Protection Program for Martin's Corner and Wagontown.	Long-term	Planning Commission Historical Commission		PP 9-7
<b>Recommendation:</b> Encourage historic preservation by supporting activities such as historic house tours, local recognition programs and heritage festivals.	Long-term	Historical Commission		PP 9-7
<b>COMMUNITY FACILITIES</b>				
<b>GOAL: Continue to provide for the development of community facilities and services that meet the physical and social needs of current and future residents.</b>				
<i>Municipal Administration:</i>				
<b>Recommendation:</b> Consider hiring a building inspector.	Immediate	Board of Supervisors		PP 10-2



<b>ACTION</b>	<b>PRIORITY</b>	<b>IMPLEMENTATION</b>	<b>TOOL</b>	<b>PAGE</b>
<b>Recommendation:</b> Consider hiring a zoning officer on a part-time basis.	Immediate	Board of Supervisors		PP 10-2
<b>Recommendation:</b> Prepare a Township Newsletter to be distributed semi-annually.	Short-term	Board of Supervisors Township Staff		PP 10-2
<b><i>Solid Waste Disposal:</i></b>				
<b>Recommendation:</b> Investigate expansion of the municipal recycling program.	Long-term	Township Staff		PP 10-2
<b>Recommendation:</b> Consider adoption of a Highway Maintenance Program.	Long-term	Township Staff		PP 10-3
<b><i>Wastewater Treatment:</i></b>				
<b>Recommendation:</b> Update the West Caln Township Sewage Facilities Plan.	Short-Term	Board of Supervisors Planning Commission		PP 10-3
<b>Recommendation:</b> Consider establishing an on-lot septic system management program.	Short-term	Board of Supervisors Township Staff		PP 10-3
<b><i>Water Facilities:</i></b>				
<b>Recommendation:</b> Identify and monitor the location of areas with contaminated groundwater subject to superfund clean-up efforts.	Immediate	Board of Supervisors Planning Commission Township Staff		PP 10-4
<b>Recommendation:</b> Consider regulatory measures that require the periodic testing of individual wells susceptible to groundwater contamination.	Short-term	Board of Supervisors Planning Commission	Township Ordinance	PP 10-4
<b>Recommendation:</b> Encourage the use of public water to meet potable water needs in the Rural Center.	Short-term	Board of Supervisors Planning Commission		PP 10-4
<b>Recommendation:</b> Investigate limiting large scale water extraction in order to sustain potable water supplies for existing residents.	Long-term	Planning Commission Special Planning Task Force		PP 10-4

<b>ACTION</b>	<b>PRIORITY</b>	<b>IMPLEMENTATION</b>	<b>TOOL</b>	<b>PAGE</b>
<b>Recommendation:</b> Consider implementing a well-head protection program.	Short-term	Board of Supervisors Township Staff		PP 10-5
<b>Recommendation:</b> Consider protective measures for the headwaters regions that supply drinking water.	Short-term	Board of Supervisors Planning Commission	Zoning Ordinance	PP 10-5
<b>Recommendation:</b> Evaluate establishing a "conservation zone" around the Coatesville Reservoir and Chambers Lake to reduce the potential for groundwater contamination.	On-going	Planning Commission	Zoning Ordinance	PP 10-5
<b><i>Stormwater Management:</i></b>				
<b>Recommendation:</b> Closely monitor all new development to ensure that it conforms with the individual grading plans as required for single lots, and the stormwater management plan as required for subdivisions or other types of land development.	Short-term	Township Staff		PP 10-6
<b>Recommendation:</b> Encourage developers to reduce the amount of impervious surface and maintain vegetative covers as a way to help manage stormwater runoff.	Long-term	Planning Commission	Subdivision and Land Development Ordinance	PP 10-6
<b>Recommendation:</b> Work cooperatively with the Chester County Conservation District on educational efforts that encourage farmers to use Best Management Practices designed for the agricultural industry.	Long-term	Agricultural Preservation Board		PP 10-6
<b>Recommendation:</b> Encourage the use of the cluster development option to minimize disturbance.	Immediate	Planning Commission	Zoning Ordinance	PP 10-6

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b><i>Parks and Recreation:</i></b>				
<b>Recommendation:</b> Implement the recommendations contained in the Open Space, Recreational and Environmental Resources Plan (1995).	On-going	Board of Supervisors Park and Recreation Board		PP 10-7
<b>Recommendation:</b> Consider appointing an Open Space and Natural Resources Advisory Committee to help coordinate implementation of the Open Space, Recreation and Environmental Resources Plan.	Short-term	Board of Supervisors		PP 10-7
<b>Recommendation:</b> The Chester County Parks and Recreation Department should communicate regularly with the Township on activities relating to the Hibernia County Park and Chambers Lake.	Short-term	Chester County		PP 10-7
<b><i>Emergency Services:</i></b>				
<b>Recommendation:</b> Support additional training for the West Caln police force.	On-going	Board of Supervisors Police Department		PP 10-7
<b>Recommendation:</b> Continue to contribute to the two local Fire Companies.	On-going	Board of Supervisors Fire Companies		PP 10-8
<b><i>Education:</i></b>				
<b>Recommendation:</b> Maintain open, regular communication with the Coatesville Area School District to facilitate school planning.	On-going	Board of Supervisors Planning Commission		PP 10-8
<b>Recommendation:</b> Consider joint efforts with the Coatesville Area School District to meet mutual needs.	Long-Term	Board of Supervisors Park and Recreation Board		PP 10-8

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b><i>Health and Human Services:</i></b>				
<b>Recommendation:</b> Retain general information for referral purposes on public health and human service facilities.	On-going	Township Staff		PP 10-8
<b>Recommendation:</b> Participate in public hearings sponsored by Chester County agencies and respond to requests for information on social service needs of residents.	Long-term	Township Administration		PP 10-9
<b>TRANSPORTATION AND CIRCULATION</b>				
<b>GOAL: Maintain a circulation system that is coordinated with the current and projected future land use and safely provides for access to all parts of the Township.</b>				
<b><i>Impact of Future Development:</i></b>				
<b>Recommendation:</b> Establish a policy by which traffic counts are conducted on a regular basis to identify roadway needs and functions.	Long-term	Board of Supervisors Township Road Master Police Department		PP 11-3
<b>Recommendation:</b> Require a Traffic Impact Study for all major developments.	On-going	Board of Supervisors Planning Commission		PP 11-3
<b><i>Future Functional Classification:</i></b>				
<b>Recommendation:</b> Establish design standards for various road functions in the Subdivision and Land Development Ordinance.	Short-term	Board of Supervisors Planning Commission		PP 11-7
<b><i>Intersection and Road Segment Improvements:</i></b>				
<b>Recommendation:</b> Consider a multi-year road improvement program to budget for major improvements.	Long-term	Board of Supervisors	Capital Improvements Plan	PP 11-7

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Recommendation:</b> Remain proactive when planning potential improvements to the road network as development continues.	On-going	Board of Supervisors		PP 11-7
<b>Recommendation:</b> West Caln should consider adopting a twenty year comprehensive maintenance program which details work to be accomplished on a short and long range basis for the entire Township.	Long-term	Board of Supervisors Township Staff		PP 11-8
<b>Recommendation:</b> Continue to focus on regular road maintenance to ensure roads continue to meet local needs.	Long-term	Township Staff		PP 11-8
<b><i>Access Management:</i></b>				
<b>Recommendation:</b> A comprehensive access management plan for the roadways of West Caln Township should be created to establish Township policy concerning driveways and other access points related to both proposed and existing development.	Short-term	Board of Supervisors Planning Commission Special Planning Task Force		PP 11-11
<b>Recommendation:</b> Participate in the PennDOT Permit Review Process as a means of planning and controlling access to major roads throughout the Township.	On-going	Board of Supervisors Planning Commission		PP 11-11
<b><i>Regional Transportation:</i></b>				
<b>Recommendation:</b> Cooperate with PennDOT, adjacent municipalities and other government agencies to ensure local needs are represented to address road issues which have a regional impact.	Short-Term	Board of Supervisors Planning Commission Township Staff		PP 11-21

ACTION	PRIORITY	IMPLEMENTATION	TOOL	PAGE
<b>Scenic Roads:</b>				
<b>Recommendation:</b> Resist pressure to widen, straighten or otherwise "improve" scenic roads to satisfy increasing traffic volumes.	Long-term	Board of Supervisors Planning Commission		PP 11-22
<b>Recommendation:</b> Protect scenic quality of roads.	Long-term	Board of Supervisors		PP 11-22
<b>Recommendation:</b> Revise regulatory measures to require consideration of scenic road qualities in the development review process.	Long-term	Planning Commission (Zoning Ordinance, Subdivision and Land Development Ordinance)		PP 11-22