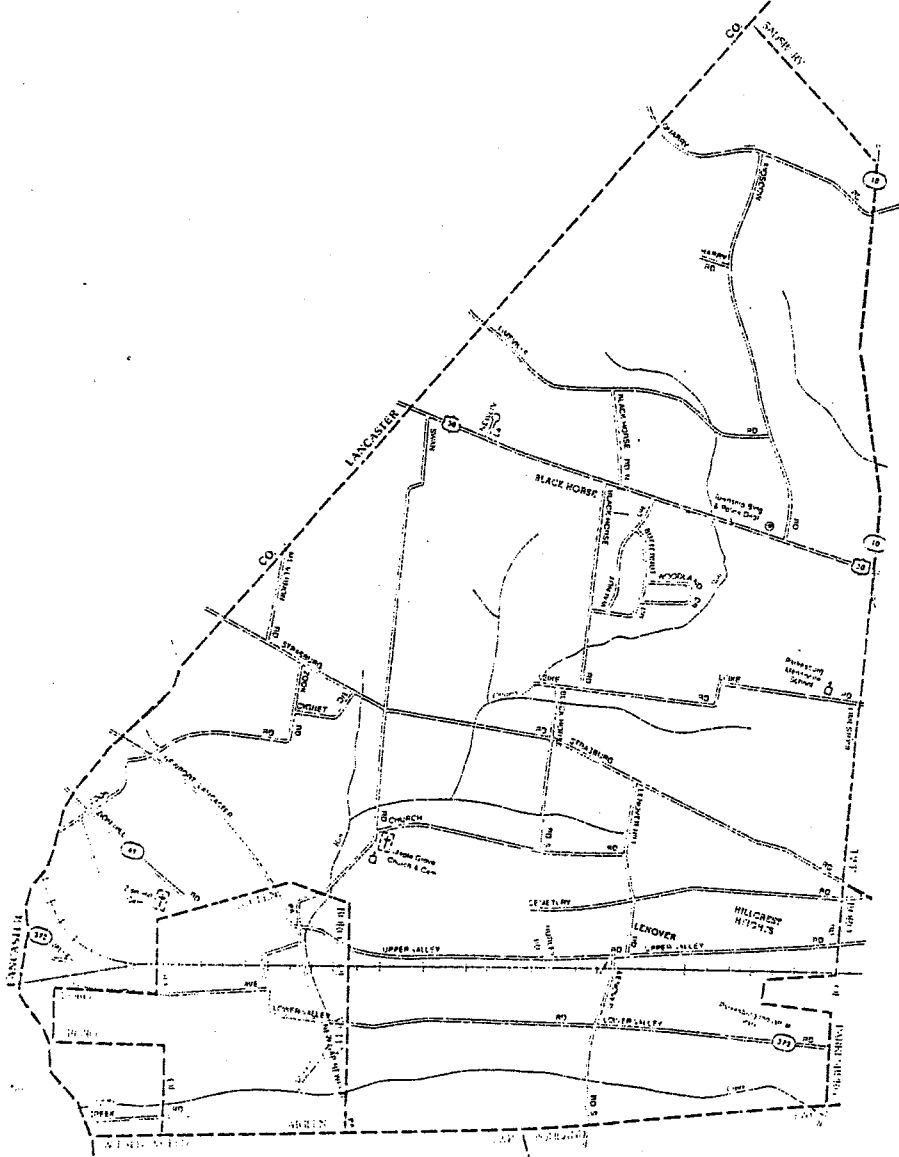


TOWNSHIP OF WEST SADS BURY

COMPREHENSIVE PLAN



PLANNING CONSULTANT

Government Specialists, Inc.
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COMPREHENSIVE PLAN

ADOPTED OCTOBER 11, 1994

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CHAPTER I

PLAN INTRODUCTION

The Comprehensive Plan is a guide for future development of land in the Township, with provision for community facilities and a traffic circulation system. The Comprehensive Plan is comprised of a statement of Community Development Objectives, which are goals for future development within the Township; a Land Use Plan; a Community Facilities Plan; a Circulation Plan; a plan for meeting the housing needs of present and future residents of the Township; a statement of the interrelationships among the plan components; a discussion of short and long-range plan implementation strategies; and a statement indicating the relationship of existing and proposed development of the Township to development and plans in adjoining municipalities, to the objectives and plans for development in the county, and to regional trends. These components of the Comprehensive Plan are mandated by the Pennsylvania Municipalities Planning Code.

The Land Use Plan component of the Comprehensive Plan establishes general categories of future land use and, within residential categories, establishes ranges of densities and types of dwellings which are expected for those areas. Following adoption of the Comprehensive Plan, the policies established in a Comprehensive Plan are usually implemented through provisions of the Township Zoning Ordinance and Subdivision and Land Development Ordinance and additional actions of the Township Planning Commission and Board of Supervisors. The Comprehensive Plan is intended to serve as a policy statement which guides the preparation of land use regulations and actions of Township officials.

Prior to preparation of the elements of the Comprehensive Plan itself, certain background studies were made to provide a basis on which to make the decisions on land use, community facilities, and circulation. Studies have been done on regional setting, Township history, natural features, population, housing and economic characteristics, community services and facilities, circulation, and existing land use. This information is presented in Chapters II through VII. Background maps showing existing land use, environmental, historic, and scenic resources, and circulation conditions within the Township have been prepared as an aid in preparation of the Plan components.

After analysis of the background data in Chapters II through VIII and the planning implications listed in those chapters, Community Development Goals and Objectives were formulated. These goals and objectives are found in Chapter IX.

The goals and objectives found in Chapter IX are followed by specific proposals designed to implement those goals and objectives. The specific proposals are found in Chapter X, Future Land Use Plan; Chapter XI, Circulation Plan; Chapter XII, Community Facilities and Services Plan; and Chapter XIV, Plan Implementation.

The Township last completed a Comprehensive Plan in 1978. This plan updates that prior plan and has been prepared as a next logical step after preparation of the Open Space, Recreation and Environmental Resources Plan recently adopted by the Township and because of concerns over development pressures expected from the east and west along the Route 30 corridor. The Plan will serve as a guide to help the Township officials make decisions which will assure that West Sadsbury Township will continue to be an attractive place in which to live and work in the future. The Plan establishes a strategy regarding land use, circulation and community facility planning decisions to the year 2010.

CHAPTER II

REGIONAL SETTING

This chapter will identify regional influences on the Township and the implications which these regional influences have for the Township as it formulates land use and circulation strategies.

SETTING

The general geographic location of the Township is shown on Map I. Map II shows the names and boundaries of the various political subdivisions that exist within Chester County.

West Sadsbury Township is located at the western extreme of Chester County. The Township is bordered on the west and north by the Octoraro Creek, which also forms the boundary with Lancaster County, on the east by Sadsbury Township and on the south by West Fallowfield and Highland Townships. West Sadsbury Township surrounds the Borough of Atglen on three sides and shares the western boundary of the Borough of Parkesburg.

The Township is traversed by U.S. Route 30 which runs east and west, by PA Route 372 which runs east and west and connects the Boroughs of Parkesburg and Atglen, by PA Route 10 which runs north and south and by PA Route 41 which runs northwest and southeast. The Penn Central railroad also traverses the Township from east to west near PA Route 372.

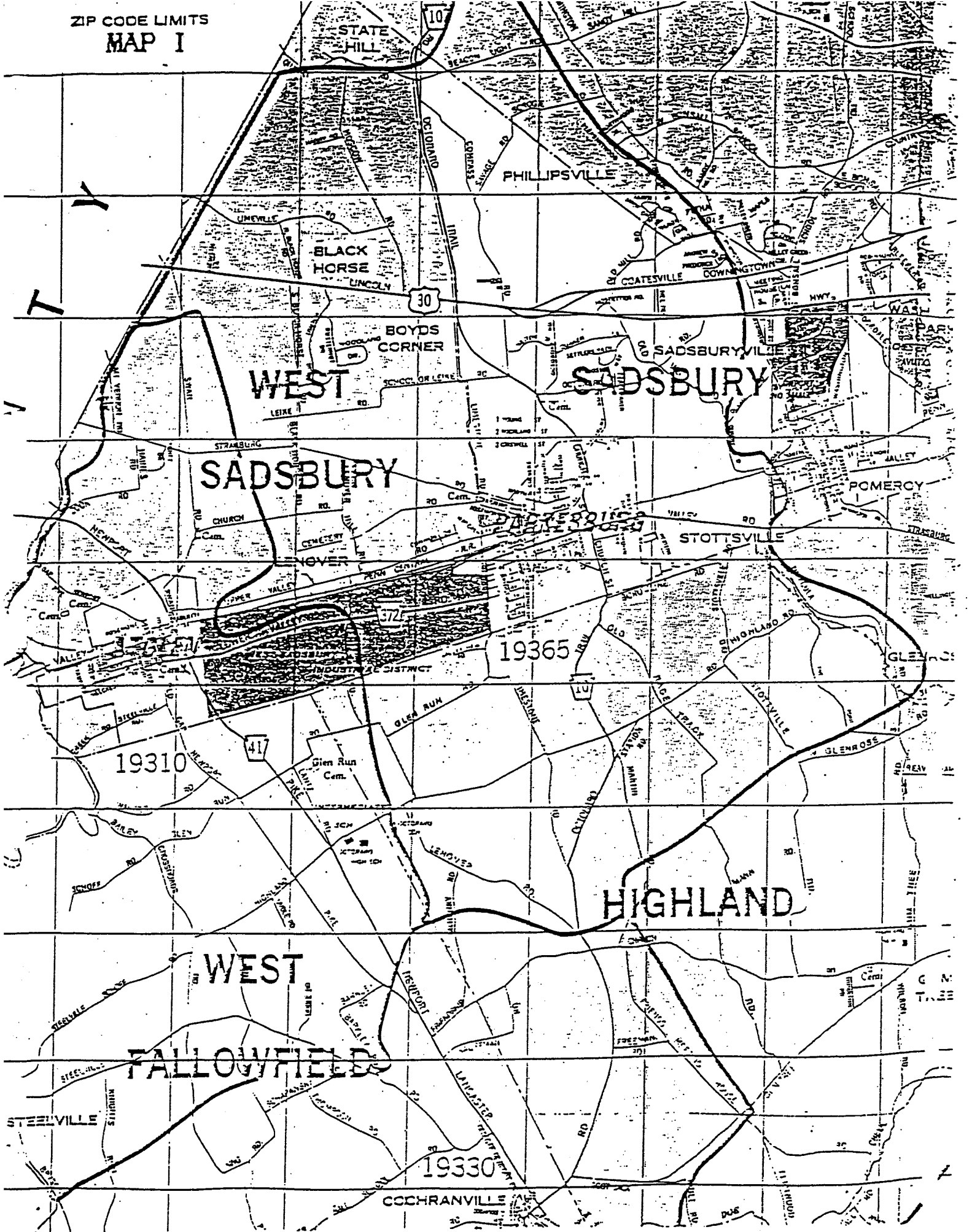
The city of Coatesville is approximately seven miles east of the Township border, the city of Lancaster is approximately twenty miles west of the Township border, Philadelphia is approximately forty-five miles to the east and Reading is approximately twenty-five miles to the north. The Pennsylvania Turnpike is about fifteen miles to the north.

During future years it is expected that West Sadsbury Township will experience development pressure. This pressure will result from growth in Lancaster County pushing east and as a result of the Exton and Route 30 by-pass pushing west. The geographic placement of the Township is such that growth will occur along the Route 30 corridor over a period of years.

CHESTER COUNTY OPEN SPACE AND RECREATION STUDY OF 1982

This plan was prepared by the Chester County Planning Commission at the direction of the County Commissioners. "The plan deals with the provision of open space and recreation at all levels, including federal, state, county, municipal, school, quasi-public and private agencies. While dealing most specifically with the activities of the Chester County government, the Open Space and Recreation Plan is intended to serve as a framework that encourages open space and recreational planning and development at all levels."

ZIP CODE LIMITS
MAP I



The study includes an inventory, standards, analysis and recommendations relating to open space and recreation. The study was focused on regions throughout the county with each municipality being evaluated within the context of its region.

The study recommends preserving the stream valleys associated with the Octoraro Creek and Buck Run, dense development should be directed away from scenic roads, the community park located near the center of the Township and preserving background open space south of Valley Creek.

The study also estimates the following needs based on established standards: one baseball/softball field, one football field, one soccer field, one basketball court and one tennis court. The Township has taken steps over the years since the study was published to address the shortage of recreational facilities. Specifically, the Township has purchased an additional 4.2 acres of ground which is contiguous to 4 acres already owned by the Township. The total of 8 acres accommodates a new, 1992, baseball field and soccer field as well as swings, pavilion, see-saw, sand box and picnic tables. There are no plans to construct a basketball or tennis court in the near future. These facilities are reasonably accessible in Parkesburg.

LAND USE PLAN, CHESTER COUNTY

In the Future Land Use 2010 plan contained within the Land Use Plan of Chester County, Pennsylvania adopted by Chester County in 1988, the Buck Run, Officer's Run, Valley Creek, Pine Creek, and Octoraro Creek corridors are identified as Stream Valley Greenways, which are areas following major streams and their larger tributaries, and include adjacent land along the watercourse. Designation as Stream Valley Greenways is consistent with preserving the sensitive environmental resources along the creeks. The policy for these areas is to restrict development along streams to protect those vulnerable natural resources, preserve open space and provide for a continuous Stream Valley system.

An area west of Parkesburg, generally bounded by Parkesburg on the east, the Valley Creek corridor on the south, Upper Valley Road on the north, and extending to the area of Glen Run on the west, was designated Employment Center. Employment Centers are areas with a high concentration of businesses, such as an industrial or office park, and contain only limited support retail uses and few or no residential uses. This area of the Township currently contains a number of industrial establishments. This area is also located within the high yield aquifer (Conestoga formation) within the Township. The major concern associated with development in this area is environmental resource protection. In general, industrial activity presents significant opportunity for adverse effects on the environmental and scenic, cultural and historic resources of the Township. In this case specifically there is concern about pollution of the aquifer that runs below the entire area designated as Employment Centers.

Small areas of Suburban Development and Activity Areas are shown to the north and west of Atglen Borough. The Suburban Development areas contain primarily residential uses with a variety of densities. They could include commercial, industrial, or institutional uses, which are not concentrated. These areas could also include community and neighborhood parks, golf courses, and other open space. Although they are primarily developed, vacant land exists for additional development to occur.

The Activity Areas are multi-purpose centers characterized by concentrations of commercial activity, employment areas, institutional uses, and residential uses, including a variety of housing types. These areas have high volumes of traffic. These are the most dense, more urban areas of the County. Some of the Activity Areas serve regional functions, while others serve more local functions. The Activity Area southwest of Atglen is shown within a particularly sensitive environmental area containing a number of water resources.

The area south of Valley Creek and the northwest portion of the Township are designated Rural Development. The plan indicates that these areas would contain low intensity uses, including agriculture, woodlands, agricultural support businesses and low density residential uses. These areas can contain villages and hamlets serving local needs. The resources within these areas include the high yield aquifer south of Valley Creek, prime agricultural soils in the northwestern portion of the Township, woodlands in the northern tip of the Township and scattered areas of wooded steep slopes.

The remainder of the Township, which is the majority of the Township, is designated Development Reserve. These are areas which are largely undeveloped at the present time, but are anticipated to evolve into Suburban Development areas in the future. Development Reserve Areas are considered the most appropriate areas for concentrated residential development that cannot be accommodated in the Suburban Development areas. In West Sadsbury Township, Development Reserve generally extends from north of Valley Creek to north of Strasburg Road and from Route 10 to Black Horse Road, Limeville Road and Moscow Road. Much of this area contains prime agricultural soils. The large wooded area in the southwest corner of the Township is also included in the Development Reserve area.

In the Development Reserve Areas, the stated policy is to expand future residential development into these areas as additional land is needed to accommodate development. However, in accomplishing this expansion, strategies include, among others,

- Encourage historic preservation to protect historic sites as part of development activity.
- Protect stream headwater areas, where not yet developed, from intensive development in order to preserve surface water quantity and quality.

- Acquire and develop community parks in deficit areas as identified in the Township's Open Space, Recreation, and Environmental Resources Plan.
- Preserve natural areas, such as woodlands, floodplains, and wetlands, for the many environmental benefits they provide.

The stated policy in the Rural Development areas is to preserve the open and rural character that exists within the fringe areas of the County. Strategies to preserve the open and rural character include, among others,

- Encourage historic districts to preserve the historic character of rural areas.
- Require natural features protection within these areas.
 - Establish ordinance regulations restricting development within floodplains, upon steep slopes, and limit vegetation removal.
 - Incorporate low density standards within stream headwater areas.
 - Pursue groundwater protection methods, beyond lower development densities.
- Restrict sewer and water infrastructure intrusion into these areas by maintaining a low density.
- Encourage agriculture preservation within these areas, with a recognition that the bulk of public investment will be within the areas designated as Agriculture.
 - Agricultural strategies which have been identified by the County include:
 - Promote the creation of agricultural districts under Act 43.
 - Municipalities should be encouraged to adopt agricultural zoning districts.
 - The transfer of development rights concept should be promoted.
 - Agricultural easement programs should be promoted.

POPULATION TRENDS

Table II-1 below gives population in 1980 and 1990 for West Sadsbury Township, Chester County, and adjoining municipalities in Chester County.

TABLE II-1
POPULATION CHANGE FROM 1980 TO 1990

<u>Municipality</u>	<u>1980 Population</u>	<u>1990 Population</u>	<u>% Change</u>
Atglen Borough	669	825	23.3
Highland Township	1244	1199	-3.6
Parkesburg Borough	2578	2981	15.6
Sadsbury Township	2398	2510	4.7
West Caln Township	4958	6143	23.9
West Fallowfield Township	2122	2342	10.4
West Sadsbury Township	1728	2160	25.0
Chester County	316,660	376,396	18.9

Source: U.S. Census

West Sadsbury Township had the largest percentage increase (25.0%). West Sadsbury, Atglen Borough, and West Caln Township all grew at a rate exceeding Chester County's 18.9 percent increase. Parkesburg Borough's rate of increase was slightly less than that of the County. West Fallowfield and Sadsbury Township had relatively slow rates of growth. Highland Township experienced a population decrease.

EXTON BY-PASS

The Exton By-Pass, now under construction, will complete the Route 30 By-Pass. The Route 30 By-Pass currently begins just east of West Sadsbury Township in Sadsbury Township and extends to East Caln Township, northeast of Downingtown. The Exton By-Pass will further extend the highway through West Whiteland Township, south of Exton, to Route 202. Completion is expected in late 1995.

When completed, the Exton By-Pass will significantly improve access and reduce commuting times from West Sadsbury Township, Sadsbury Township, and the Coatesville area to King of Prussia, West Chester, and Philadelphia. This will likely result in additional residential development pressure. Commercial and industrial development typically follows substantial residential development.

PLANNING AND ZONING IN SURROUNDING MUNICIPALITIES

Sadsbury Township

In Sadsbury Township land from the northern Township boundary to just north of Route 30 is zoned Rural Residential. In the Rural Residential District agricultural and single family detached dwelling uses are permitted on 60,000 square foot lots. From just north of Route 30 to Leike Road, land is zoned General Commercial. A wide variety of commercial uses are permitted on 40,000 square feet lots. Land south of Leike Road to the Parkesburg Borough boundary is zoned Rural Residential.

Parkesburg Borough.

Adjoining land is Parkesburg from the Sadsbury Township line to Upper Valley Road is zoned R-2 Residential. In the R-2 District, single family detached dwellings are permitted on lots ranging from 9,000 square feet to 20,000 square feet, depending upon the availability of public sewer and water facilities. Land between Upper Valley Road and the railroad tracks is zoned Commercial. A wide variety of commercial uses are permitted on 12,000 square feet lots. The portion of the Borough which projects into the Township is zoned Industrial. Industrial uses are permitted on 4 acre lots. The land between the projection into the Township and Lower Valley Road is zoned R-2 Residential. The area south of Lower Valley Road is zoned R-1 Residential. Single family detached dwellings are permitted on lots ranging from 15,000 square feet to 30,000 square feet, depending upon the availability of public sewer and water facilities.

Highland Township

Adjoining land in Highland Township immediately west of South Limestone Road is zoned Residential. Agriculture, single family detached dwellings, single family semi-detached dwellings and two family detached dwellings are permitted on 30,000 square feet lots. Land between the Residential Zone and the Industrial Zone in the vicinity of South Lenover Road is zoned Rural Development. In the Rural Development District, agricultural and single family detached dwelling uses are permitted on 2 acre lots. Land on either side of South Lenover Road is zoned Industrial. Industrial uses are permitted on a 25 acre site with 2 acre minimum lot size.

West Fallowfield Township

Adjoining land in West Fallowfield Township is zoned Agriculture Residential. Agriculture and single family detached dwellings are permitted on 10 acre lots.

Atglen Borough

Land in Atglen from the southeast Borough boundary to just south of the railroad tracks is zoned R-1 Low Density Residential. Agricultural uses, single family detached dwellings and retirement communities are permitted. The lot size for single family detached dwellings ranges from 20,000 square feet to 1 acre, depending upon the availability of public sanitary sewer and water facilities. Land on either side of the railroad tracks, between the R-1 District and just south of Upper Valley Road, is zoned Light Industrial. Land from just south of Upper Valley Road to Swan Road is zoned Conservation. In the Conservation District agricultural and single family detached dwellings at R-1 District standards are permitted, upon review of slope conditions. The northern portion of the Borough, from Swan Road to just north of the railroad tracks, is zoned R-1 Low Density Residential. Land on either side of the railroad tracks is zoned Light Industrial. Land between the railroad tracks and Route 372 is zoned R-3 High Density Residential. In the R-3 District, single family detached dwellings are permitted on 10,000 square feet lots, single family semi-detached dwellings are permitted on 7,500 square feet lots and multiple family dwellings are permitted at 8 dwelling units per acre. A small section along Route 372 is zoned Light Industrial. From the Light Industrial District along the western Borough boundary to Creek Road, land is zoned R-2 Medium Density Residential. In the R-2 District, single family detached dwellings are permitted on 15,000 square feet lots, single family semi-detached dwellings are permitted on 9,000 square feet lots, multiple family dwellings are permitted at 5 dwelling units per acre and agriculture is permitted. Land south of Creek Road is zoned R-1 Low Density Residential.

West Caln Township

Adjoining land in West Caln Township is zoned Low Density Residential. Agricultural uses, single family detached dwellings on lot sizes ranging from 18,000 square feet to 60,000 square feet depending upon availability of public sewer and water facilities, cluster development and PRDs at a density of 4 dwelling units per acre are permitted.

Salisbury Township

Salisbury Township borders the Township from the northern Township line to Route 30. For the adjoining land in Salisbury Township, the northern half is zoned A-Agriculture and the southern half is zoned R-Rural. In the Agriculture Zone, agriculture and single family detached dwellings are the principal permitted uses. Agriculture is permitted on 10 acre parcels and single family detached dwellings are permitted on 1 to 1.5 acre parcels, provided that not more than one single family detached dwelling not related to a farm can be created every 5 years. In the Rural District, agriculture and single family detached dwelling uses are the predominant permitted uses, with a minimum lot size of 3 acres.

Sadsbury Township, Lancaster County

Adjoining land in Sadsbury Township extends from Route 30 south to the Christiania Borough boundary between Route 41 and Gap-Newport Pike, and is also found south of the Christiania Borough line (located between Route 372 and the railroad tracks near Atglen Borough) to Creek Road. Land immediately south of Route 30 is zoned C-1, General Commercial. A wide variety of commercial and office uses are permitted with the lot size ranging from 15,000 square feet with both public sewer and water available to 43,560 square feet with no public services available. Land south of the C-1 District to Pine Creek is zoned A-Agriculture, and agricultural and single family detached dwelling uses are the principal permitted uses. Agriculture is permitted on 10 acre minimum parcels. Single family detached dwellings are permitted by conditional use on minimum 1 acre parcels, provided only one non-farm lot is created every 4 years. Land between Pine Creek and Christiania Borough is zoned R-1 Residential. Agricultural and single family detached dwellings are the principal permitted uses, with minimum lot sizes ranging from 15,000 square feet to 1 acre, depending upon the availability of public sewer and water facilities. Land south of Christiania Borough is zoned C-Conservation. Parks, conservation uses, and agricultural uses are permitted on 10 acre minimum lots. Single family detached dwellings on 1 acre minimum lots are permitted provided not more than one lot is created each 4 years.

Christiania Borough

Land from the northern Borough line to the area of Zook Road is zoned R-2, Medium Density Residential. Principal permitted uses are single family detached dwellings and single family semi-detached dwellings by right and apartments and mobile home parks by special exception. For a single family detached dwelling, the minimum lot size is 7,000 square feet; for a single family semi-detached dwelling 3,500 square feet is to be provided per dwelling unit; for mobile homes a minimum lot size of 7,000 square feet is required; and for apartments, a minimum lot area of 2,500 square feet per dwelling unit is required. Land between Zook Road and the railroad tracks is zoned I, Industrial. A variety of industrial type uses are permitted, with lot size determined by the needs of the use. Land immediately south of the railroad tracks is zoned R1-B, Low Density Residential. Single family detached dwellings are the principal permitted use, on a lot size of 10,000 square feet minimum. The remainder of the adjoining land in the Borough is zoned Conservation. Single family detached dwellings and open space uses are the principal permitted uses. The minimum lot size is 20,000 square feet.

PLANNING IMPLICATIONS OF REGIONAL SETTING

- The Township is affected by factors beyond its municipal boundaries, and these factors can have significant regional impacts. The goals and policies of the Township should address regional concerns and impacts.

- There should be discussions with surrounding municipalities in order to promote compatibility of planned land uses along municipal boundaries.
- Transportation issues are regional in nature and should be addressed through cooperation with state agencies, regional groups, and adjoining municipalities.
- The Township should participate in regional planning programs to effectively address regional issues such as land use, transportation, and provision of municipal services with municipalities facing similar issues.
- Implications for potential increased pressure for residential, commercial and industrial development in the Route 30 area, resulting from construction of the By-Pass, should be considered.

CHAPTER III

HISTORY AND SCENIC, HISTORIC, AND CULTURAL RESOURCES

This chapter will identify the scenic, historic and cultural resources in the Borough and their implications for the goals and objectives and the Future Land Use Plan developed later in this study.

HISTORY

"The following petition was presented to the August court, 1728:

"The Petition of the Inhabitants of Sadsbury Sheweth That Whereas we, your petitioners, humbly Conceiving The Great Necessity There is of having our Township distinctly Located and bounded from the Township of fallowfield, and further Conceiving the hardship Imposed upon our Constable and other officers in our Township To serve both in Sadsbury and fallowfield for the Want of y^e Two Townships being divided and their bounds Separately Known We, your Petitioners, humbly take Leave to Exhibit to you how far the Township of Sadsbury, since it was so Called and Settled Extends (viz) The east end beginning in y^e Land that was formerly Nathan Dick's, but now in the possession of Samuel Jones and William Mickle, and from thence a Long y^e valley to y^e Land and Plantation of Caleb Pierce, being seven miles in Length, and in breadth, three miles Consistent With the Length aforesaid, making the South Mountain the division Line Between Sadsbury and fallowfield Now your Petitioners Craves That you Would be pleased to take the premises to your Mature Consideration, and Grant that our township of Sadsbury, may be hereafter settled, Located and bounded Within the Limits aboves^d and that our Constable over seers of y^e poor and of high Ways may be no other ways Burthened then To serve as their several and Respective duties may Command within our Township of Sadsbury Exempt and Clear from fallowfield, and your Petitioners Will Gratefully acknowledge y^e same."

At a court held November 27, 1728, it was ordered that:

"Upon the Petition of the Inhabitants of the Township of Sadsbury, in the said County, praying that the said Township of Sadsbury may be Divided, made into Two Townships and called East and West Sadsbury, and that the Township of fallowfield may be separated from Sadsbury and made one Intire Township as heretofore it has been, as also that the limits of y^e said Three Townships may be fully Determined. Its ordered that the said Township of Sadsbury shall be Divided into Two Townships and y^e Eastern part thereof called East Sadsbury, shall be Bounded as followeth:

Beginning at the South East Corner of Caleb Pierce's Land by Octoraro Creek, thence along the South lines of the Lands late of Isaac Taylor, John Powell, Sarah Weight, the heirs of John Weight, Wm. Marsh, Wm. Grimson, and Nathaniel Dicks, to the South East Corner of the said Dick's Land, and from thence along the mountains on the south side of the Great Valley, to the settled Western Boundaries of y^e Township of Caln, and from thence Crossing the Valley by the west line of y^e Land late of William Flemming, to the far side of the plantation, late of Arthur White on the Top of the mountain on the north side of the Valley, and from thence to the north side of the Land Surveyed to Francis Worley, and thence along the top of the Ridge of mountains that Divides the Branches of Brandywine from y^e Branches of Doe Run and Octoraro to the top of the mountain opposite to y^e North East Corner of the Land, late of William Pusey, thence along y^e Top of the said mountain to the North East Corner of a Tract of Land late of Thomas Hayward, thence along the East line of the said Tract to y^e South East Corner thereof, and from thence along the East line of a Tract of Land Surveyed for the proprietor's use to the South East Corner of y^e same, and from thence to the North East Corner of the said Caleb Pierce's Land, and then down the said Caleb Pierce's line to the Beginning; and it is also ordered that the Western Division of the said Township of Sadsbury shall be bounded as is hereinafter mentioned, viz.: Beginning at the said North East Corner of the said Thomas Hayward's Land, and from thence Extending Westward along the Top of the mountain that Divides the Branches of Pequea and Beaver Creek from those of Octoraro, to the North West Corner of John Kyle's Land, and from thence by y^e Western line of the said Kyle's Land, to the South West Corner thereof, and Extending from thence South six hundred perches, and then East to Octoraro Creek, and thence up the said Creek to the South East Corner of the said Caleb Pierce's Land, and thence by the line of East Sadsbury to the Beginning."

Upon the creation of Lancaster County, in 1729, the line between the two divisions of the township was made to conform to the county line.

In 1813 the line between Sadsbury and West Caln townships, as its eastern end, was relocated and settled. In 1852, Sadsbury was reduced in size by the formation of Valley township, previous to which it extended eastward to the Brandywine at Coatesville.

In 1867 the township was divided by decree of court into two election districts, the Limestone road being made the division line, and the places of voting fixed at Sadsburyville for the eastern division, and the "Swan" for the western division.

The township was further reduced in size by the erection of the borough of Parkesburg, by act of Assembly of March 1, 1872, and by the erection of the borough of Atglen, by decree of court of December 20, 1875. The latter borough includes within its limits the former village of Penningtonville.

In 1878 the township was divided and West Sadsbury established, the line being the same that had separated the two election districts since 1867.

The early settlers were a mixture of Friends from England, and of Scotch-Irish Presbyterians. The Friends came first, and were followed by the Presbyterians.

As an historical item worth preserving, it may be mentioned that about the close of the late war with Great Britain there seems to have been a mania for laying out towns. John Pettit, who was the owner of a tavern-house and 50 acres of land in Sadsbury township, Chester County, on the Lancaster and Philadelphia turnpike road, sold it, in 1814, to Abraham Brenneman and others for the sum of \$16,000. They laid out thereon a town, to which they gave the name of "Moscow". Lots were sold to various persons at prices ranging from \$250 to \$500, calling for such streets as Cossacks, Wyburg, Alexander, Charlesburg, and others. One lot was set apart for a church, and another for a seminary. Fifteen lots, including the tavern-house, and containing altogether about four acres, were sold to Daniel Heister and John Duer for \$8000.

The town flourished, however, only on paper. The plot was gotten up in fine style, and presented an attractive appearance. The project failed, and the lots which had been purchased for \$8000, and on which a prudent money-loaner had invested \$3000 on mortgage, were sold by the sheriff for \$1300. Cossacks Street became again the common turnpike-road, and the others returned to the bosom of the farm from which they had sprung.

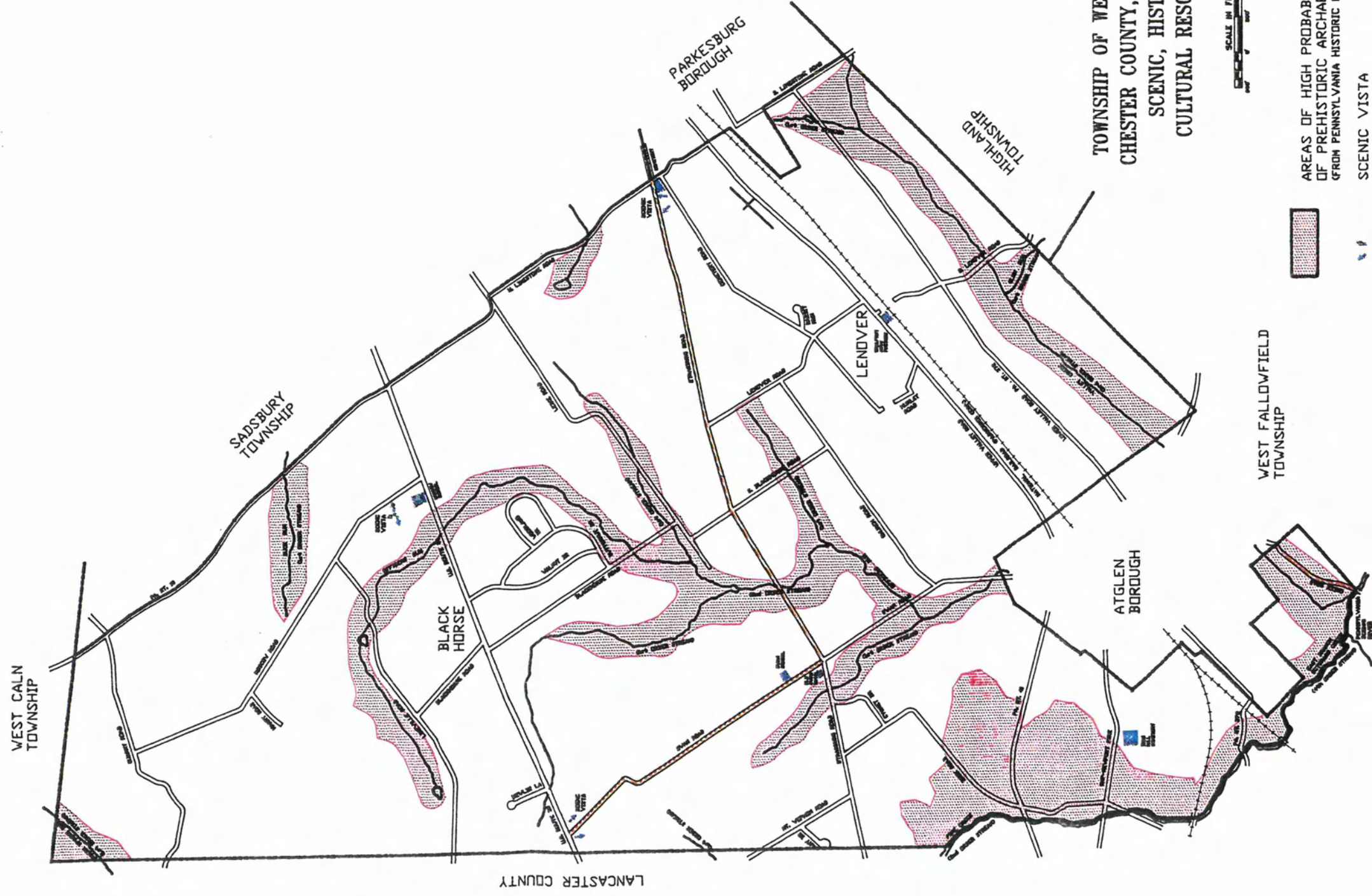
It was on this property the "Moscow Academy" was subsequently located, and from which it derived its name."

SOURCE: History of Chester County, J. Smith Futhey and Gilbert Cope, 1881

In the 1920's Chalfont Motor Works was established. The company manufactured cars, but no longer exists. In the 1980's some commercial enterprises developed along Route 30. Diversified Printing was also developed in the 1980's. Green Giant Frozen Food moved into the area in 1980's as well, and is still here today.





SCENIC, HISTORIC, AND CULTURAL RESOURCES

The Scenic, Historic and Cultural Resources Map indicates the location of areas the Pennsylvania Historic Museum Commission (PHMC) has identified as areas of archaeological sensitivity within the Township. These areas have a high probability for the presence of prehistoric archaeological sites. The areas of archaeological sensitivity generally are found along the watercourses within the Township, except for the extensive area east of Pine Creek in the area of Zook Road, Route 41 and Gap-Newport Pike.



**TOWNSHIP OF WEST SADBURY
CHESTER COUNTY, PENNSYLVANIA
SCENIC, HISTORIC, AND
CULTURAL RESOURCES MAP**



-  AREAS OF HIGH PROBABILITY FOR THE PRESENCE OF PREHISTORIC ARCHAEOLOGICAL SITES (FROM PENNSYLVANIA HISTORIC MUSEUM COMMISSION)
-  SCENIC VISTA
-  SCENIC ROAD
-  HISTORIC BUILDING OR SITE

WEST FALLOWFIELD
TOWNSHIP

There are no sites on the National Register of Historic Places nor National Historic Landmarks within the Township. Historic sites of local interest have been identified on the map.

Scenic roads and vistas, as identified by the Township, have been shown on the map.

Areas Of High Probability For The Presence Of Prehistoric Archaeological Sites

The PHMC narrative to accompany the sensitivity maps follows:

The determination of areas of high probability for the presence of prehistoric archaeological sites in this Township was based on a comparison of the topographic setting of the recorded archaeological sites to the general topography of the Township. Extensive research has shown that the location of prehistoric sites is closely related to a number of environmental variables. Relatively flat ground, converging streams, springheads, saddles, floodplains, swamps and water in general (including streams that are extinct today) are the most important factors. We use 7.5" U.S.G.S. topographic maps in developing these maps. On the enclosed maps, sensitive prehistoric archaeological areas are highlighted in yellow.

West Sadsbury Township has not been systematically surveyed for the presence of prehistoric archaeological sites. There are currently nine (9) sites recorded in the Township. Expectations as to the presence of other sites have been based on the distribution of recorded sites in West Sadsbury Township and on recorded sites in other portions of Chester and Lancaster counties that exhibit similar topographic features.

West Sadsbury Township is characterized by fairly steep slopes dissected by numerous small streams that feed into the East Branch of Octoraro Creek. In such an area, we would expect to find relatively small sites associated with either the earlier Paleoindian (pre 8000 B.C.) or the Archaic time periods, or with special activities from any time period.

Paleoindian sites are the rarest type known in Pennsylvania, numbering only around 230 for the entire state. They represent the evidence of the first human inhabitants of the area and date before 8000 B.C.

The Archaic period, lasting in this area from about 8000 B.C. to 1000 B.C., is a period of population increase and diversification in response to changing environmental conditions. The knowledge of the distribution and form of Archaic sites in this heavily populated area is very important to an understanding of changing adaptations.

Sites from the following Woodland period (1000 B.C. - A.D. 1550) sites are more often confined to settings that provide more open ground, such as floodplains and some hilltops.

Historic archaeological sites may also be present within West Sadsbury Township. Historical significance should also be considered in development planning.

The areas of archaeological sensitivity are important to protect because they can contain valuable archaeological resources, which can aid archaeologists in establishing the record of the settling of Chester County.

Historic Sites

The Township has identified several sites of local historic interest. These include the Chalfont Auto Factory building in Lenover, the former Moscow School along Route 30 west of Moscow Road, the former Swan School along Swan Road north of Strasburg Road, the former Swan Hotel along Strasburg Road at its intersection with Swan Road, the Zion Hill Cemetery south of Gap-Newport Pike and the Catholic Cemetery between Strasburg and Cemetery Roads at the eastern Township boundary.

Historic sites should be preserved and protected from incompatible uses because they are the remaining heritage of the Township and their documentation will trace the development of the Township for current and future Township residents.

Scenic Roads

The Township has identified three scenic roads within the Township; Creek Road in the southwest corner of the Township is a local road, Swan Road from Route 30 to Strasburg Road is a local road and Strasburg Road from Swan Road to the eastern Township boundary is a minor collector.

The Creek Road area is a beautiful landscape of pastures, trees and agricultural land. The road leads to the Octoraro Creek, which is a Pennsylvania Scenic River. Water resources and potential archaeological sites have been identified in the area.

The Swan Road area is a scenic agricultural area within the Township and contains two historic sites as noted above. A scenic vista is located at Route 30. Prime agricultural land is located along the road.

The Strasburg Road area is also a scenic agricultural area containing prime agricultural land. A scenic vista opens up at the eastern end of the road.

If the areas along the scenic roads can be preserved from incompatible encroachments, in addition to providing a pleasant driving experience, other resources which have been identified in this study will also be protected.

Scenic Vistas

Three scenic vistas in the Township have been identified. One is located at the Township Building/Park site, looking to the west, north and east. Distant views of agricultural lands and woodlands are available. Similar views are available looking to the northwest and northeast from the Catholic Church between Strasburg and Cemetery Roads at the eastern Township boundary. The third scenic vista is along Route 30 at Swan Road, looking to the south and southeast. Agricultural lands predominantly, but also woodlands, can be viewed.

The scenic vistas provide pleasant aesthetic experiences for Township residents and attempts should be made to preserve the vistas.

PLANNING IMPLICATIONS OF SCENIC, HISTORIC AND CULTURAL RESOURCES

Potential archeological sites are generally found in stream corridors. Scenic vistas are found at the Township building/park, Route 30 and Swan Road and the Catholic Cemetery. Scenic roads include Swan, Strasburg and Creek Roads. Several historic sites are scattered through the Township. The archeological, scenic and historical resources are important to the understanding of the history and heritage of the Township; to the preservation of unique features which made West Sadsbury Township special to the residents of the Township; and to providing for pleasing experiences for Township residents.

A major objective of the Township should be to preserve existing scenic, historic and cultural resources, including areas of high probability for the presence of prehistoric archeological sites, scenic vistas, scenic roads and historic sites.

CHAPTER IV NATURAL RESOURCES

In this section we will discuss existing municipal resources and lands, which have been identified and shown on the Water Resources Map, Land Resources Map, Biotic Resources Map, Scenic, Historic and Cultural Resources Map and Protected Municipal Lands Map. The planning implications of these resources as reflected in the Community Goals and Objectives and Future Land Use Plan will be reviewed.

WATER RESOURCES

The Water Resources Map indicates watershed boundaries, approximate 100-year floodplains, wetlands, hydric soils, the high-yield aquifer within the Township (Conestoga Formation) linear features (fractures) and fault lines. The high-yield aquifer, linear features and fault line constitute the important geologic and hydrologic features within the Township. In addition, stream corridors have been indicated and the stream order classification given.

Drainage Basins

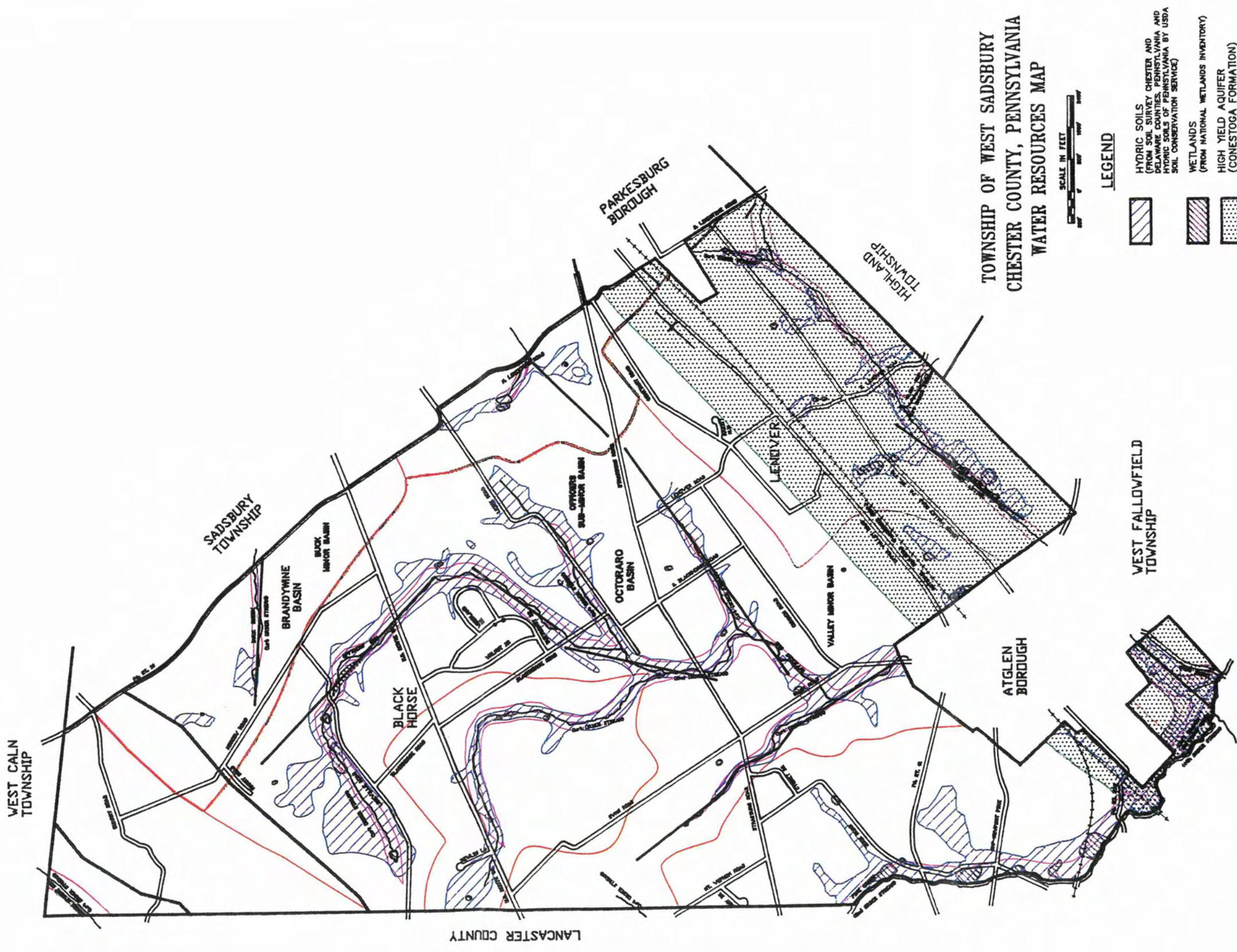
The Chester County Planning Commission Report Natural Environment and Planning identifies the Officers Sub-minor Basin. This is the watershed for the Officer's Run. In addition, watershed boundaries are indicated for Indian Spring Run, Buck Run, a tributary to Buck Run, a tributary to Officer's Run, Pine Creek and Valley Creek.

The Officer's Run watershed is located in the central portion of the Township and comprises a large portion of the Township. To the north, the watershed extends north of Harry and Limeville Roads; to the east, the watershed extends to Moscow Road and toward North Limestone Road; to the south, it extends to north of Lenover and the Atglen Borough line; and to the west, it extends close to Zook and Mt. Vernon Roads. The Officer's Run watershed is by far the largest watershed within the Township.

The next largest watersheds are the Valley Creek and Pine Creek watersheds. The Valley Creek watershed is found in the southern portion of the Township, extending from the eastern Township line to the western Township line. The Pine Creek watershed is found in the southwest portion of the Township, extending from west of Swan Road to the western Township boundary.

The Indian Spring Run watershed is found in the northern tip of the Township, in the vicinity of Quarry Road and the northern portion of Moscow Road.








The Buck Run watershed is located in the northeastern portion of the Township, generally east of Moscow Road. Most of the watershed falls north of Route 30.



**TOWNSHIP OF WEST SADBURY
CHESTER COUNTY, PENNSYLVANIA
WATER RESOURCES MAP**



LEGEND

-  HYDRIC SOILS
(FROM SOIL SURVEY CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA AND HYDRIC SOILS OF PENNSYLVANIA BY USDA SOIL CONSERVATION SERVICE)
-  WETLANDS
(FROM NATIONAL WETLANDS INVENTORY)
-  HIGH YIELD AQUIFER
(CONESTOGA FORMATION)
(FROM CHESTER COUNTY GEOLOGY MAPS)
-  WATERSHED BOUNDARIES
-  LINEAR FEATURES (FRACTURES)
(FROM GEOLOGICAL RECORDS OF CHESTER COUNTY, PENNSYLVANIA)
-  APPROX. 100 YEAR FLOODPLAIN
(FROM FEMA FLOOD INSURANCE RATE MAP)
-  FAULT LINE
(FROM CHESTER COUNTY GEOLOGY MAPS)

LANCASTER COUNTY

The watershed for a tributary to Buck Run is found in the eastern portion of the Township near Route 10 and North Limestone Road. The watershed for a tributary to Officer's Run is found in the west central portion of the Township, from north of Route 30 to north of Strasburg Road and roughly extending from Swan Road to Blackhorse Road.

The Sub-minor Basins for Buck Run and the tributary to Buck Creek are in the Buck Minor Basin. The Buck Minor Basin is within the Brandywine Major Basin and the West Branch Sub-major Basin.

The Officer's Sub-minor Basin, Valley Creek watershed and watershed of the tributary to Officer's Run are in the Valley Minor Basin. The Valley Minor Basin is within the Octoraro Major Basin.

Buck Run and Octoraro Creek are classified as major streams in the Chester County Open Space and Recreation Study.

Floodplains

Approximate 100-year floodplains are shown from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Detailed studies have not been performed to establish, through calculation, the extent of the 100-year floodplains. Any development proposed in the area of watercourses by developers would require a calculated study of the 100-year floodplain by the developer until such time as detailed studies are performed by FEMA.

Floodplains are shown for Officer's Run, Buck Run, Indian Spring Run, Valley Creek, Pine Creek and the East Branch of the Octoraro Creek, and tributaries to those streams. The most extensive floodplains occur along the Officer's Run and its tributaries, Valley Creek, Pine Creek and the area of the confluence of the Octoraro Creek and Valley Creek.

Floodplains are areas adjacent to watercourses which are covered by flood water during times of flooding. A 100-year floodplain is the area which has a 1% chance of being flooded during any one year, and which is typically used for regulatory purposes. It is best if the floodplains are not developed, because development within the floodplains results in a danger to persons and property. If development occurs within the floodplain, this may constrict the area over which flood waters may flow, resulting in increased flood damage downstream because of resultant increased flood velocities downstream. Outdoor storage of materials within floodplains is not desirable because of the possibility of the materials entering the stream when flooding of the banks occurs.

Care must be taken in disturbing areas along watercourses because increased sedimentation within the stream (increased depositing of soil within the stream) can occur. Increased impervious cover along watercourses typically increases the storm water runoff in the streams. The runoff can erode stream banks and channels. If sedimentation is increased, filling of stream beds can occur, which could cause flood waters to cover a larger area, meandering of streams, and choking of life within the stream, detracting from the aesthetic value of the stream.

It is desirable to keep pervious surfaces on stream banks, as opposed to impervious surfaces such as paved areas. As surface runoff of water moves toward streams, water can be absorbed into the ground if the surface is pervious. Increased absorption can result in replenishment of groundwater and also in decreased flood peaks because less water reaches the stream from the surface of the land. Inadequate supply of groundwater can result in an inadequate flow of water to the stream during dry months. The inability to sustain stream flow can mean a greater concentration of pollutants at periods of low flow.

Agriculture practiced along streams should be practiced with care. Increased tillage and use of the soil can increase the sediment concentration and runoff reaching streams. Animal excretions can result in increased bacteriological concentration in runoff, pesticides can result in increased undesirable chemicals in runoff and fertilizer and manure can increase nitrate concentrations in runoff.

On-site sewage disposal systems should not be located within areas subject to flooding because of the danger of contamination of the stream and the groundwater because of the proximity of the stream and the presence of the high water table. There may not be an adequate distance between the on-site facility and surface water to permit renovation of sewage effluent prior to its reaching the stream. In some instances, soils found in the floodplains are very porous and the movement of sewage effluent is too rapid to allow for the renovation of the effluent prior to reaching the groundwater table or the stream. In other situations, the soil near the surface may be saturated with water or become readily saturated with sewage effluent, resulting in effluent remaining near or rising to the surface of the land. When flooding occurs, sewage effluent could then contaminate the surface water. The efficiency of filter fields of septic tanks can be impaired or destroyed as a result of flooding.

Wetlands

The wetlands shown on the Water Resources Map are from the National Wetlands Inventory, prepared by the Office of Biological Services, U.S. Department of the Interior, Fish and Wildlife Service. The wetlands inventory was prepared by stereoscopic analysis of high altitude aerial photographs, with the wetlands identified on the photographs based on vegetation, visible hydrology and geography. A detailed on the ground and historical analysis of any site may result in a revision of the wetland boundaries and it is possible that small wetlands and those obscured by dense forest cover may not be identified.

Wetlands within the Township are generally found along the watercourses. There are a few instances of isolated wetland areas. Where wetlands are confined to the area abutting the watercourse, this is indicated by a linear wetland designation. Most wetlands areas are small in extent. The largest areas of wetlands are found along the Pine Creek, Octoraro Creek and Valley Creek near its confluence with the Octoraro Creek.

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, prevalence of vegetation typically adapted for life in saturated soil conditions. During on-site investigation, wetlands can sometimes be identified when they are saturated with permanent or semi-permanent standing water and contain common wetlands plants such as cattails and willows. If wetlands can not be identified by hydrophytes (plants adapted to life in saturated soil conditions), soils may be investigated to determine whether wetlands are present. Hydric soils mapping can be used to identify potential wetlands sites. Hydric soils are discussed below.

To try to put wetlands into less technical terms, often sites adjacent to streams, low lying land that remains wet for considerable periods of the growing season, land that can not be farmed because it is too wet or can only be farmed every few years, or low-lying land that can only be developed by filling are likely to be wetlands.

Wetlands can be areas rich in plant growth and animal habitat. They often serve as breeding places for many organisms. In addition to providing a home and a source of food for organisms, wetlands can protect water sources and can help keep water sources clean by acting as natural filters and removing pollutants such as bacteria and sediment from water. This occurs as plants growing in and around wetlands trap pollutants.

Wetlands store water which can replenish groundwater and surface water supplies.

In general, no developmental activity or placement of fill material may occur within wetlands without obtaining a DER permit.

Hydric Soils

Hydric soils are also indicated on the Water Resources Map. The hydric soils have been mapped from the Soil Survey, Chester and Delaware Counties, Pennsylvania and Hydric Soils of Pennsylvania by the U.S. Department of Agriculture Soil Conservation Service and indicate areas of potential wetlands. Hydric soils are developed under conditions sufficiently wet to support the growth and regeneration of hydrophytic vegetation and are soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions (an anaerobic situation is one in which molecular oxygen is absent) in the upper part.

Criteria for identifying hydric soils include somewhat poorly drained soils that have water table less than 0.5 ft. from the surface for a significant period (usually a week or more) during the growing season; are poorly drained or very poorly drained and have either water table at less than 1.0 ft. from surface for a significant period during the growing season if permeability is equal to or greater than 6.0"/hr. in all areas within 20", or have water table at least 1.5 ft. from the surface for a significant period during the growing season if permeability is less than 6.0"/hr. in any layer within 20"; soils that are ponded for long duration (from 7 days to 1 month) or very long duration (greater than 1 month) during the growing season; or soils that are frequently flooded for long duration or very long duration during the growing season.

The areas of hydric soil are more extensive than the areas of wetlands, however, they are generally found in the vicinity of the watercourses within the Township. There are several isolated areas of hydric soil. The most extensive areas of hydric soil are found at the headwaters of the Officer's Run.

Important Geologic And Hydrologic Features

These features include the high-yield aquifer, Conestoga Formation, as identified in Chester County Geology Maps and linear features (fractures) and fault lines identified in Ground-water Resources of Chester County, Pennsylvania and Chester County Geology Maps.

A band of Conestoga Formation is found throughout the width of the Township along the southern Township boundary. The characteristics of the Conestoga Formation are given below:

CONESTOGA FORMATION

Description - Medium-gray, impure limestone with shale partings; conglomeratic at base; in Chester Valley includes micaceous limestone, phyllite and alternating dolomite and limestone.

Bedding - Crudely bedded to poorly bedded; thin.

Fracturing - Joints have an irregular pattern; poorly formed; moderately abundant; widely spaced and have an uneven regularity; many open but some filled with quartz and calcite.

Weathering - Moderately resistant; slightly weathered to a shallow depth; variably weathered (impure layers weather to a higher relief); large, irregularly shaped fragments result; mantle thickness is highly variable and may be extremely thick; interface between bedrock and mantle is usually pinnacle.

Topography - Rolling valleys and hills of low relief; natural slopes are gentle and stable.

Drainage - Good surface drainage with minor subsurface drainage; few sinkholes.

Porosity - Joint and some solution channel openings provide a secondary porosity of low magnitude.

Groundwater - Fair for public supplies and industrial use; very good for small public supply; excellent for domestic use.

Ease of Excavation - Requires blasting; bedrock pinnacles and numerous quartz veins are special problems; slow drilling rates with rotary equipment; quartz veins slow drilling rate.

Cut-Slope Stability - Stable in very steep cuts.

Foundation Stability - Good quality foundation for heavy structures; thorough investigation for possible sink areas should be undertaken.

Construction Materials - Good for road material, riprap, building stone and fill.

Source: Groundwater Resources of Chester County, Pennsylvania.

The Conestoga Formation is classified as being a fair source for public water supply and industrial use, but very good for small public supply and excellent for domestic use. In addition to being a potential source of water supply, the Conestoga Formation has a high potential for groundwater pollution because it is a limestone formation. The limestone is subject to the formation of a weak carbonic acid solution through chemical interaction with air and water. The carbonic acid solution works to dissolve rock, forming underground solution channels and possibly sinkholes. Storage of water can occur in these solution channels, giving potential for substantial water yields. However, pollutants may also move through the underground solution channels.

Because of the potential for pollution of the groundwater, the use of on-site sewage disposal within the Conestoga Formation should be discouraged and potentially hazardous materials should not be stored where they could enter the groundwater system.

Care must also be taken in the removal of groundwater, which could result in collapse of rock and formation of sinkholes.

Fractures and faults are areas of high groundwater yield because storage can occur there. As is the case with the Conestoga Formation, fractures and faults are areas where groundwater is also more susceptible to pollution, as pollutants can travel through fractures and faults at a greater speed and distance.

Fault lines are shown in the northern portion of the Township. Fractures are found at several locations throughout the Township, generally, in the vicinity of watercourses.

Headwater Areas

The wetlands and hydric soil areas within the Township serve as headwater areas of watercourses which begin within the Township, including Buck Run, Officer's Run and its tributaries, a tributary to Buck Run and a tributary to Valley Creek. Stream headwater areas should be protected from intense development in order to preserve surface water quality and quantity.

In the Land Use Plan, Chester County, Pennsylvania, much of West Sadsbury Township is indicated, in a general way, as headwater area. The northern tip was indicated as headwater area for the Pequea Creek, the eastern portion of the Township as headwater area for the Brandywine Creek, and the central portion as headwater area for the Octoraro Creek.

Stream Order Classification

Stream order classification is indicated on the Water Resources Map.

A first order stream has no tributaries. A second order stream has a tributary or tributaries which are first order streams. A third order stream has a tributary or tributaries which are second order streams. A fourth order stream has a tributary or tributaries which are third order streams.

The East Branch of the Octoraro Creek is a fourth order stream within the Township. Valley Creek is a third order stream and Pine Creek and Officer's Run are second order streams. Officers Run begins as a first order stream within the Township.

Indian Spring Run, Buck Run within the Township, tributaries to Officer's Run and Pine Creek, Glen Run and the other tributary to Valley Creek are first order streams. First order streams are particularly vulnerable to sedimentation and pollution. In addition, they are very important as breeding grounds and habitats. Because of this, they must be afforded protection from encroachments.

The eastern portion of the Township is within the Brandywine Major Basin, and drains to the West Branch of the Brandywine Creek. The Brandywine Creek itself is not located within the Township.

Within the Chester County Water Resources Inventory Study of the Brandywine Subbasin, surface water quality was classified as generally moderate within the Brandywine Basin, but subject to noticeable fluctuation. After calculating the water supply budget, the Chester County Water Resources Inventory Study noted that the calculated reserve supply indicated that the water demands of the watershed could be met at the time more than adequately by available water, but demands and affects of future development could dramatically alter the situation. The availability of water in the future would depend upon such variables as the rate and density of urban development, water consumption, patterns of water supply and methods of wastewater management. The study concluded that in many cases, concern for water quality imposes limits to urban growth prior to levels where the reserve water supply approaches zero.

Most of the Township is in the Octoraro Basin, and the East Branch of the Octoraro Creek is located along the western Township boundary in the southwest corner of the Township.

The Chester County Water Resources Inventory Study of the Octoraro Subbasin indicated that based upon water exported from the watershed by the activities of the Chester Water Authority and the Octoraro Water Company, and the allocations to them, the reserve supply was on the verge of reaching deficit levels in severe drought periods. Reserve supply was a cause for concern and indicated a need to access future water supply management strategies in the watershed.

The natural groundwater quality in the watershed was considered good and surface water quality moderate, with considerable fluctuations because of the proximity of urban development (Boroughs in the watershed).

The East Branch of the Octoraro Creek is protected by DER for trout stocking, including maintenance of stocked trout from February 15 to July 31, and maintenance and propagation of the fish species and additional flora and fauna which are indigenous to warm water habitat. DER has established standards for aluminum, alkalinity, ammonia-nitrogen, arsenic, bacteria, chromium, copper, cyanide, dissolved oxygen, fluoride, iron, lead, manganese, nickel, nitrate plus nitrite, pH, phenolics, temperature, total dissolved solids and zinc. The basins of tributaries to the right bank, including Buck Run, unnamed tributaries of Buck Run, Williams Run and Pine Creek are protected by DER for cold water fishes, including maintenance and/or propagation of fish species including the family Salmonidae and additional flora and fauna which are indigenous to a cold water habitat. Standards are established for the same parameters for which standards have been established for the East Branch of the Octoraro Creek.

LAND RESOURCES

The Land Resources Map indicates areas of steep slopes (slopes greater than 15%), as indicated in the Soil Survey, Chester and Delaware Counties, Pennsylvania, additional nonprime agricultural soils besides the steep slope areas, and prime agricultural soils (Capability Units I, II, and III), from Soils Survey Chester and Delaware Counties, Pennsylvania.

Steep Slopes

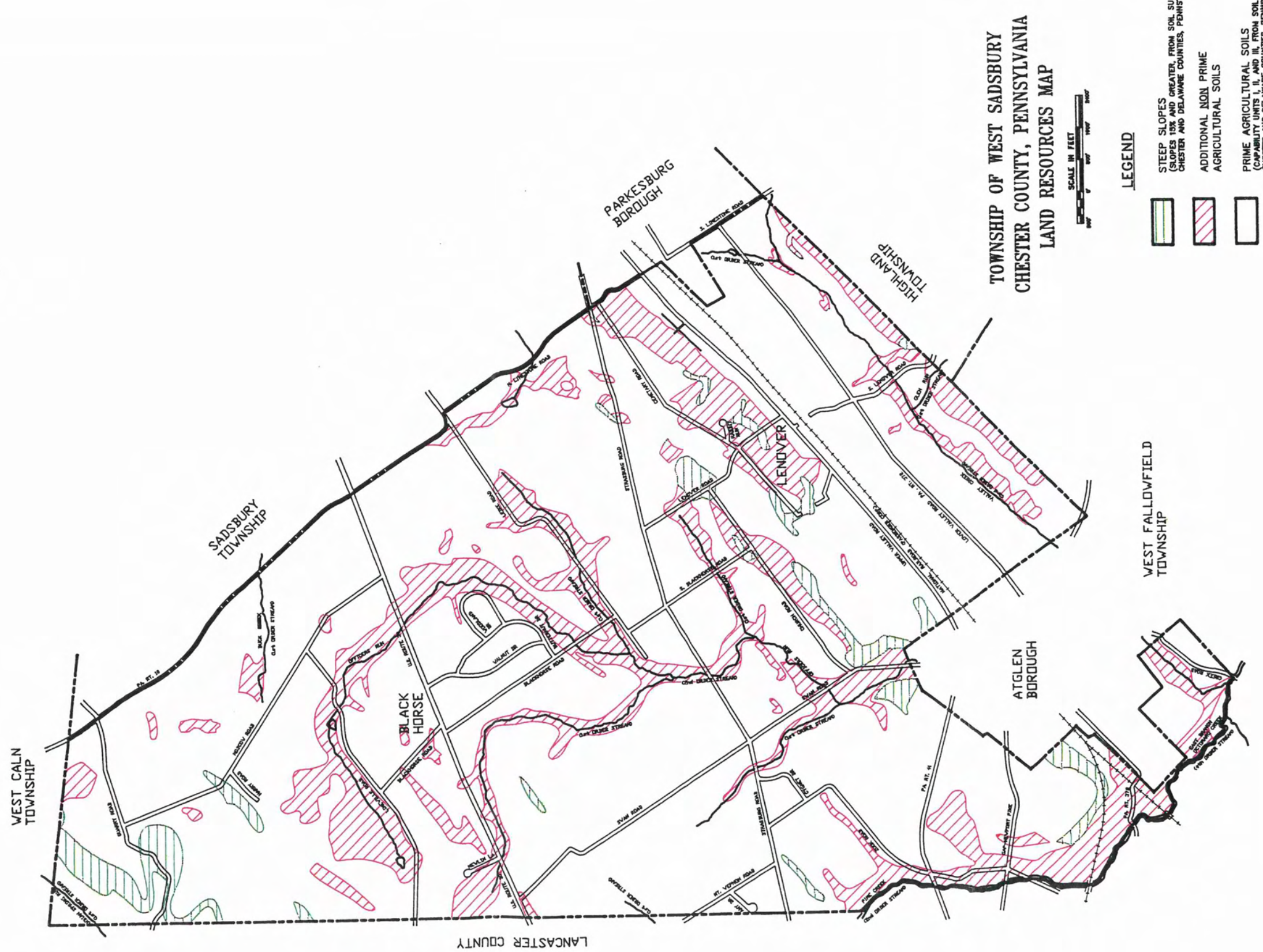
There are not many areas of steep slopes within the Township. Areas of steep slope are found in the northern tip of the Township, and scattered east to west in the Township, north of the railroad tracks and Upper Valley Road.

Areas which have slopes greater than 15% have severe limitations to development. In general, this land is too steep for residential subdivisions and cultivation. Development of steep slopes can result in hazardous road conditions, costly excavation, erosion and sedimentation and storm water runoff problems. These slopes are quite prone to erosion, protection of them is particularly important for water resource protection when watercourses are nearby. Development should be limited, vegetative cover maintained to the greatest extent possible and erosion controls instituted. Without absorptive vegetation, runoff can rapidly erode the slopes.

Prime Agricultural Soils

Prime agricultural soils are found throughout most of the Township. The areas of nonprime agricultural soils are the steep slopes identified on the Land Resources Map and severely eroded and wet areas, which are generally found near the watercourses within the Township and the areas of steep slope. In many cases, the hydric soils are nonprime agricultural soils. A substantial area of eroded soils is found in the Lenover area.

The capability classification of the United States Department of Agriculture is a grouping of soils to show, in a general way, the suitability for most kinds of farming. The classification is based upon limitations of the soils, the risk of damage when they are used and the way they respond to treatment. Soils are classified according to degree and kind of permanent limitation, without consideration of major and generally expensive land forming that would change the slope, depth, or other characteristics of the soils; and without consideration of possible but unlikely major reclamation projects.



**TOWNSHIP OF WEST SADBURY
CHESTER COUNTY, PENNSYLVANIA
LAND RESOURCES MAP**



LEGEND

-  STEEP SLOPES
(SLOPES 10% AND GREATER, FROM SOIL SURVEY
CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA)
-  ADDITIONAL NON PRIME
AGRICULTURAL SOILS
-  PRIME AGRICULTURAL SOILS
(CAPABILITY UNITS I, II, AND III, FROM SOIL SURVEY
CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA)

The soils included within the prime agricultural soils delineation are Class I, II, and III soils. Class I soils have few limitations that restrict their use. Class II soils have some limitations that reduce the choice of plants or require moderate conservation practices. Class III soils are those that have severe limitations that reduce the choice of plants or require special conservation practices, or both. There are five other capability classes that are not designated prime agricultural soils.

The prime agricultural soils are soils which generally should be the best soils for farming and which should be retained for agricultural purposes when possible. Typically, the best farmland is also land conducive to building activities, which can create potential conflicts in land usage.

BIOTIC RESOURCES

The Biotic Resources Map shows significant wooded areas within the Township, taken from aerial photographs. No Pennsylvania Natural Diversity Inventory (PNDI) sites have been identified within the Township. The Township has determined that there is no locally important vegetation within the Township to identify on this map.

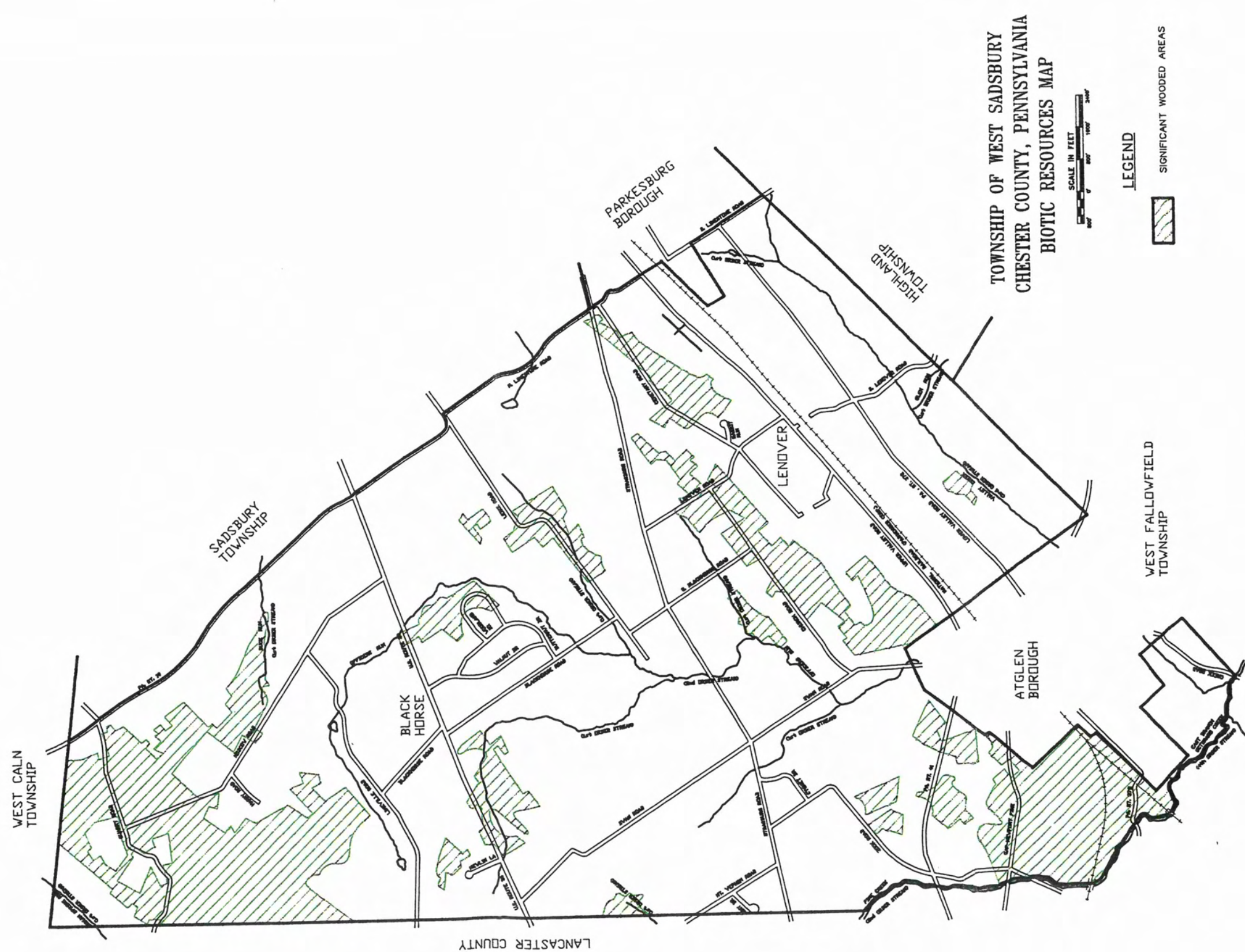
Significant Wooded Areas

Significant wooded areas are scattered throughout the Township, with the greatest expanses occurring in the northern tip of the Township, northwest of Atglen Borough, and in a band from the eastern Township line to Atglen Borough north of the railroad tracks and Upper Valley Road.

Wooded areas are scenic amenities and habitats for wildlife and home to most of the native species in the County. They provide visual relief from developed land areas. In addition, they increase capacities for absorption of storm water runoff, diminishing flood potentials and decreasing erosion. Wooded areas are especially valuable when on steep slopes, playing the important role of reducing runoff and erosion and sedimentation by binding the soil.

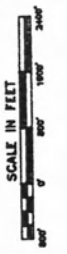
Maintenance of wooded areas on steep slopes is of even greater importance when the steep slopes are near streams which could be disturbed through sedimentation and experience greater flood peaks if they are swelled by increased surface runoff. Wooded areas are in some cases in proximity to the watercourses within the Township, sometimes on steep slopes.

When wooded areas are retained, the quantity and quality of groundwater can be better maintained than if woods are removed, because the natural cover allows for infiltration of rainfall into the groundwater system. Retention of wooded areas will also preserve the home of most of the native species in the County.



LANCASTER COUNTY

TOWNSHIP OF WEST SADBURY
 CHESTER COUNTY, PENNSYLVANIA
 BIOTIC RESOURCES MAP



LEGEND

-  SIGNIFICANT WOODED AREAS

Wooded areas also have recreational potential, whether for individual lot owners or, when within public recreational facilities, for the population as a whole.

PLANNING IMPLICATIONS OF NATURAL RESOURCES

The Comprehensive Municipal Environmental Resources Map is a composite map which indicates water resources, land resources, biotic resources and scenic, historic and cultural resources within the Township.

When the resources are combined onto one map, we see that certain areas of the Township contain more than one resource. Areas that stand out are the areas adjoining watercourses within the Township, particularly Buck Run, Officers Run and its tributaries, Valley Creek, Pine Creek and Octoraro Creek. In addition to containing wetlands, hydric soils, fractures and floodplains, these areas along the creeks also contain areas of high probability for the presence of prehistoric archaeological sites.

Another area of major concern, though not containing such a combination of sensitive environmental resources, is the area of the Conestoga formation in the southern portion of the Township, on either side of the Valley Creek Corridor.

An objective of the Township should be to protect the quantity and quality of surface and groundwater within the Township by protecting the water resources within the Township.

Because the hydric soils, wetlands, floodplains and fractures are found along the watercourses, if stream corridors are preserved from development, the Township's objective can be accomplished. Ways of protecting the stream corridors are through designation of the corridors for preservation and the required establishment of buffers along the stream through preservation of hydric soils, wetlands and floodplains.

The high yield aquifer (Conestoga formation) presents a potential water supply as well as an area where groundwater resources can be polluted because of the limestone nature of the formation. Portions of the formation could be preserved via preservation of the Valley Creek stream corridor. If development would occur in portions of the Conestoga formation, safeguards to prevent pollution of the groundwater should be established. This could be done by developer recognition of this carbonate area and having certain protective procedures and standards applicable to this area.

Of major concern will be the prime agricultural soils areas outside the stream corridors.

An objective of the Township should be to preserve prime agricultural soils which have not been developed. The prime agricultural soils, if preserved, provide areas for the continuance of agricultural activities within the Township. In addition to providing a component of the economy of the Township, agricultural areas provide background open areas which are often scenic and serve to provide buffers between residential developments. Much of the land in the Township is prime agricultural soils.

The wooded steep slopes scattered through the Township are of concern, however, their extent is limited. Wooded areas not on steep slopes are also of concern, though not as vulnerable a resource as the wooded areas on steep slopes.

An objective of the Township should be to protect existing biotic resources within the Township, specifically significant wooded areas.

The stream valleys, farmland, and woodlands in the Township constitute background open space, which is seen and perceived by residents of the Township. The preservation of these resources, particularly the stream valleys and farmland, is very important to the Township because they help create the image of the Township as a pleasant, rural community. As development occurs in the Township in the future, if this background open space is not preserved, the rural character of the Township will be lost. Preservation of the rural character of the Township is a priority of most Township residents.

CHAPTER V

POPULATION, HOUSING AND ECONOMIC CHARACTERISTICS

This chapter will examine existing population, housing and economic data and projected population to determine the implications for planning for the Township.

POPULATION DATA

During the past 10 years the population of the Township has increased by 432 persons or 25.0%. The population in 1980 was 1,728 and in 1990 2,160. This represents a moderate increase in population yet within comfortable limits. Looking back in time, the population in the Township has grown steadily over the years. There have been no significant changes in any particular time frame that would suggest a major event had occurred to stimulate or retard growth.

Using projections prepared by the Chester County Planning Commission, it is anticipated that moderate growth will occur over the next 30 years. From 1990 to 2000 a change of 510 (23.6%) is anticipated, from 2000 to 2010 a 20.6 % change or 550 and from 2010 to 2020 a 23.0% change or 740. Likewise the population density is expected to increase from 201.9 persons per square mile in 1990 to 370.1 in 2020. The Township should be able to adequately manage and accommodate this level of growth without suffering significant consequences. That is in contrast to areas where the population has exploded and the municipality was unable to avoid the serious adverse consequences of rapid and sustained growth.

The age breakdown of the current population in the Township is 709 persons (32.8%) between the ages of newborn to 17, 1,264 persons (58.5%) between the ages of 18 and 64, and 187 persons (8.7%) over the age of 65. The breakdown in 1980 was 594 persons (34.4%) between the ages of newborn and 17, 1,012 (58.6%) between the ages of 18 and 64, and 122 (7.1%) over the age of 65. The age distribution is shown in Table V-2. The greatest number of persons, 723 (33.5%), fall in the 25 to 44 year old age category. The next largest group, 535 persons (24.8%), fall in the 5 to 17 year old bracket. The median age is 32.0, those under 18 account for 32.8% of the population while those over 65 account for 8.7%. Other related data can be found in Table V-6.

The racial composition of West Sadsbury Township on the 1990 census is 1,972 persons (91.3%) of the population white, 174 persons (8.1%) black, 6 persons (0.3%) American Indian, Eskimo or Aleutian, 4 persons (0.2%) Asian or Pacific Islander and 4 persons (0.2%) of other races.

Of the total population in 1990, there are, 1,104 (51.4%) males and 1,056 (48.9%) females. In 1980 there were 879 (50.9%) males and 849 (49.1%) females.

According to the 1990 census, there are 39 persons 3 years old and older enrolled in primary school, 491 in elementary or high school and 54 in college. Of the 491, 90 (18.3%) are enrolled in a private school. There are 1,301 persons who are 25 years old and older. Of that number 889 (68.3%) earned a high school diploma or higher. There are 137 (10.5%) of that number that have earned a bachelor's degree or higher. There are 23 persons between the age of 16 and 19 who are not enrolled in school and who are not high school graduates.

EMPLOYMENT DATA

Employment data can be found in Table V-3. There are 1,100 persons over the age of 16 considered to be in the labor force. Of that number 632 are employed males, 11 are unemployed males, 423 are employed females and 34 are unemployed females. The total number of unemployed persons, 45, is 4.1% of the labor force. The per capita income is \$12,896, the median household income is \$38,750 and the median family income is \$41,000. Persons with income below the poverty level (93) equal 4.3%, families with income below the poverty level (23) equal 4.0%. Persons over 65 years old account for 5.6% of those below the poverty level. Related data can be found in Table V-4. By contrast, the per capita income for Chester County is \$20,601, the median household income is \$45,642 and the median family income is \$52,325.

The top six occupations of those in the labor force are: precision production, craft and repair 190 persons, administrative support and clerical 162 persons, service related 120 persons, executive, administrative and managerial 91 persons, machine operators, assemblers and inspectors 90 persons and professionals 89 persons.

The five major industries which employ Township residents are: retail trade 165 persons, manufacture of durable goods 151 persons, construction 118 persons, manufacture of non durable goods 102 persons and agriculture 92 persons.

HOUSING DATA

The total number of housing units in the Township is 690. Of that number 549 (79.6%) are single unit detached, 18 (2.6%) are single unit attached, 28 (4.1%) are 2-4 units, 1 (0.1%) are 5-9 units, 0 (0%) are over 10 units and 94 (13.6%) are mobile homes. There are 561 (84.4%) owner occupied units, 104 (15.6%) renter occupied units and 25 (3.6%) vacant units in the Township. The average number of persons per occupied unit is 3.25, per owner occupied unit is 3.25 and per rented unit is 3.26. Additional data can be found in Table II-7.

The median value of owner occupied housing in West Sadsbury Township was \$115,800 in 1990, compared to a median value of homes in Chester County of \$155,900. In 1980 the median value of owner occupied housing in West Sadsbury Township was \$52,700.

There is an almost equal split of housing values between the \$50,000 - \$99,999 range, 134 units, and the \$100,000 - \$149,999 range, 137 units. However, 19.5% or 77 units are in the \$150,000 - \$199,999 range and 6.3% or 25 units in the \$200,000 - \$299,999 range. Generally, the housing values reflect the character of the community as middle income wage earners.

TABLE V-1

SOCIO-ECONOMIC FEATURES

WEST SADBURY TOWNSHIP

POPULATION DATA

1980	1990	%	2000	%	2010	%	2020	%
TOTAL	TOTAL	CHANGE	PROJ	CHANGE	PROJ	CHANGE	PROJ	CHANGE
1728	2160	25.0	2670	23.6	3220	20.6	3960	23.0

DENSITY (Persons Per Square Mile)

1980	1990	2000	2010	2020
161.5	201.9	249.5	300.9	370.1

AGE & GENDER

TOTAL	AGE TOTAL						AGE MALE			AGE FEMALE		
1990	0-17	%	18-64	%	65+	%	0-17	18-64	65+	0-17	18-64	65+
2160	709	32.8	1264	58.5	187	8.7	370	643	91	339	621	96

RACE

1990 TOTAL	WHITE	%	BLACK	%	AM IND ESKIMO ALEUT	%	ASIAN & PACIFIC ISLANDER	%	OTHER RACES	%
2160	1972	91.3	174	8.1	6	0.3	4	0.2	4	0.2

TABLE V-1

SOCIO-ECONOMIC FEATURES

Continued

LEVEL OF EDUCATION

PRE-PRIMARY SCHOOL	ELEMENTARY/HIGH SCHOOL	COLLEGE
39	491	54

PERSONS 25 YEARS AND OVER

HIGH SCHOOL GRAD OR HIGHER	BACHELOR'S OR HIGHER
68.3	10.5

ELEMENTARY OR HIGH SCHOOL AGE IN PRIVATE SCHOOLS IS 18.3 %

PERSONS 16-19 YEARS OLD NOT IN SCHOOL AND NOT A GRADUATE

EMPLOYED	UNEMPLOYED
15	3

TABLE V-2

AGE DISTRIBUTION

WEST SADBURY TOWNSHIP

	1980	% OF TOTAL	1990	% OF TOTAL	% CHANGE
UNDER 5 YEARS	164	9.5	174	8.1	6.1
5 TO 17 YEARS	430	24.9	535	24.8	24.4
18 TO 20 YEARS	83	4.8	82	3.8	-1.2
21 TO 24 YEARS	97	5.6	71	3.3	-26.8
25 TO 44 YEARS	531	30.7	723	33.5	36.2
45 TO 54 YEARS	157	9.1	219	10.1	39.5
55 TO 59 YEARS	82	4.7	101	4.7	23.2
60 TO 64 YEARS	62	3.6	68	3.1	9.7
65 TO 74 YEARS	77	4.5	131	6.1	70.1
75 TO 84 YEARS	37	2.1	50	2.3	35.1
85 AND OLDER	8	0.5	6	0.3	-25.0
MEDIAN AGE	27.7		32.0		
UNDER 18 YEARS OLD	594	34.4	709	32.8	
65 YEARS AND OLDER	122	7.1	187	8.7	

TABLE V-3

EMPLOYMENT DATA

WEST SADBURY TOWNSHIP

EMPLOYMENT STATUS 1990

PERSONS 16 YEARS OLD AND OVER

TOTAL	FEMALE	TOTAL % IN LABOR FORCE	% FEMALE IN LABOR FORCE	TOTAL UNEMPLOYED	%
1543	749	71.3	61.0	45	4.1

EMPLOYMENT STATUS 1989

PERSONS 16 YEARS OLD AND OVER WHO WORKED

TOTAL	WORKED 40 OR MORE WEEKS	WORKED 35 OR MORE HOURS PER WEEK AND 50 TO 52 WEEKS IN THE YEAR
1175	926	695

TRANSPORTATION

PERSONS COMMUTING TO WORK VIA INDICATED MEANS

CAR, VAN, TRUCK	CARPools	PUBLIC TRANSIT
87.9 %	16.5 %	0.4

TABLE V-4

INCOME CHARACTERISTICS

WEST SADBURY TOWNSHIP

INCOME

PER CAPITA INCOME	MEDIAN HOUSEHOLD INCOME	MEDIAN FAMILY INCOME
12,896	38,750	41,000

PERSONS WITH INCOME BELOW POVERTY LEVEL IS 93 OR 4.3 %.

PERSONS 65 YEARS OLD AND OVER BELOW POVERTY LEVEL IS 11 OR 5.6 %.

FAMILIES WITH INCOME BELOW POVERTY LEVEL IS 23 OR 4.0 %.

THE MAJOR EMPLOYERS, AND NUMBER OF EMPLOYEES, IN THE TOWNSHIP ARE:

RETAIL TRADE	165 PERSONS
MANUFACTURE OF DURABLE GOODS	151 PERSONS
CONSTRUCTION	118 PERSONS
MANUFACTURE OF NON DURABLE GOODS	102 PERSONS
AGRICULTURE	92 PERSONS

TABLE V-5

HOUSING DATA

HOUSING TYPE

1990	1-UNIT		1-UNIT		2-4		5-9		10+		MOBILE	
TOTAL	DETACHED	%	ATTACHED	%	UNITS	%	UNITS	%	UNITS	%	HOME	%
690	549	79.6	18	2.6	28	4.1	1	0.1	0	0	94	13.6

HOUSING VALUE

OWNER SPECIFIED VALUE	0 TO \$50,000	%	50,000-99,999	%	100,000-149,999	%	150,000-199,999	%	200,000-299,999	%	300,000+	%
395	20	5.1	134	33.9	137	34.7	77	19.5	25	6.3	2	.5

MEDIAN VALUE OF ACTUAL HOME SALES
IN 1990 WAS \$ 114,900
BASED ON 14 TRANSACTIONS

MEDIAN VALUE OF HOMES
IN CHESTER COUNTY
WAS \$ 155,900

MEDIAN VALUE OF OWNER OCCUPIED
HOUSING UNITS WAS \$ 115,800
IN 1990
VALUE IN 1980 WAS \$ 52,700;
A CHANGE OF 119.7%

OCCUPANCY

OWNER OCCUPIED HOUSING	561	84.4 %
RENTER OCCUPIED HOUSING	104	15.6 %
VACANT HOUSING	25	3.6 %

PERSONS PER OCCUPIED UNIT	3.25
PERSONS PER OWNER OCCUPIED UNIT	3.25
PERSONS PER RENTER OCCUPIED UNIT	3.26

TABLE V-5

HOUSING DATA

Continued

RENTAL VALUE

Below \$250	19	24.4 %
250 - 499	52	66.7 %
500 - 749	5	6.4 %

OCCUPANCY BY RACE

WHITE	%	BLACK	%	AM IND ESKIMO ALEUT	%	ASIAN & PACIFIC ISLANDER	%	OTHER	%
608	91.4	53	8.0	3	.5	0	0	1	0.2

PERSONS OF HISPANIC ORIGIN INCLUDED IN
TOTALS ABOVE EQUAL 3 OR 0.5 %

TABLE V-6

POPULATION PROJECTIONS
WEST SADBURY TOWNSHIP

<u>Year</u>	<u>Population</u>	<u>Increase Over 10 Years</u>	<u>% Increase Over 10 Years</u>
1990	2,160		
2000	2,670	510	23.6%
2010	3,220	550	20.6%
2020	3,960	740	23.0%

Source: Chester County Planning Commission

LAND USE REQUIREMENTS

Based upon the Chester County Planning Commission's population projections for the Township shown in Table V-6, an estimation has been made of the Land Area necessary to accommodate the projected increase. This information is shown in Table V-7.

For instance, from 2000 to 2010, the projected population increase is 550. Assuming 3.25 people per household (the 1990 average for the Township), this would be 170 new households between 2000 and 2010. The total number of new households from 1990 to 2010 would be 327. If development occurred as single family dwellings on one acre lots, 213 acres would be consumed between 2000 and 2010. 410 acres would be consumed between 1990 and 2010. (Because land is used for roads, utilities, open spaces and other land uses not included within lots, the net yield is .80 house per acre rather than 1.00 house per acre). If development occurred as single family homes on 10,000 square feet lots (3.48 houses per acre), 49 acres would be consumed from 2000 - 2010. 95 acres would be consumed from 1990 - 2010.

TABLE V-7

LAND AREA REQUIREMENTS
WEST SADBURY TOWNSHIP

	<u>1990-2000</u>	<u>2000-2010</u>	<u>2010-2020</u>
Projected Population Increase	510	550	740
Projected Household Increase (assume 3.25 people/household)			
10-year Period	157	170	228
Cumulative	157	327	555
Projected Acreage Required to Accommodate Household Increase			
Assume average lot size 1 acre (.80 houses/acre)			
10-Year Period	197	213	285
Cumulative	197	410	695
Assume average lot size 10,000 square feet (3.48 houses/acre)			
10-Year Period	46	49	71
Cumulative	46	95	166

PLANNING IMPLICATIONS OF POPULATION AND HOUSING

- The Township experienced substantial population growth from 1980 to 1990, 432 persons (25.0%). From 1990 to 2020 substantial population growth is projected for the Township - an increase of 1800 persons.
- Community facility and service planning should consider the needs of all age groups of the population.
- An opportunity for a variety of housing types should be provided for the Township.
- The Future Land Use Plan should provide for accommodation of the population growth expected in the Township.
- A more compact pattern of development will consume less land.

CHAPTER VI

COMMUNITY SERVICES AND FACILITIES

This chapter discusses the Township government and budget, planning related documents which have been prepared for the Township, the recreation facilities of the Township and other facilities and services available to Township residents. This information has particular relevance for the Community Facilities Plan.

ORGANIZATION OF GOVERNMENT

The type of governmental structure in place in West Sadsbury Township is referred to as the Supervisor form of government. The legislative powers and duties rest with the Board of Supervisors. The following summary discusses the structure, departments and staffing in place currently and traditionally. Chart I depicts the organization of government within the Township. West Sadsbury is a Township of the second class.

Board of Supervisors

The Township is governed by the Board of Supervisors which is comprised of three members who are elected by the voters to serve a six year term. The terms are staggered such that one member is elected during each municipal election which occurs every two years. The supervisors are elected at large, there are no wards. The general legislative powers are vested in the Board of Supervisors.

Planning Commission

The planning commission is a five member board appointed by the Board of Supervisors to four year terms. The planning commission is charged with reviewing all subdivision and land development plans and recommending to the Board appropriate action regarding each plan. In addition, the planning commission will begin work on updating the comprehensive land use plan for the Township. The commission meets one time each month or more often if circumstances dictate.

Zoning Hearing Board

The zoning hearing board is a three member board appointed by the Board of Supervisors to four year terms. The zoning hearing board is charged with hearing and deciding applications for relief from various provisions of the zoning ordinance. The board meets as needed when applications are received.

Auditor

There are three auditors who are elected by the voters of the Township to serve a six year term. The terms are staggered such that one member is elected during each municipal election which occurs every two years. The auditors are responsible for examining the financial records of the Township, rendering reports, reporting observations, reviewing salaries and filing appropriate reports with various agencies. The Township generally does not hire an independent accounting firm to perform or assist in the audits.

Tax Collector

The tax collector is elected by the voters of the Township to serve a four year term. The tax collector is responsible for the collection of the annual real estate taxes levied by the Township and to provide a complete accounting and record of taxes collected or owing.

Secretary/Treasurer

Currently the position of secretary/treasurer is held by one individual who was appointed and hired by the Supervisors. The individual holding this position generally works about 50 hours per month. The secretary/treasurer generally is responsible for the routine administrative matters of the Township and keeping the finances and financial records of the Township.

Park & Recreation Committee

There is a three member park and recreation committee which functions in an advisory capacity with regard to improvements to the facilities and maintenance. The Supervisors budget for park and recreation purposes as needs are identified. The Township road crew provides routine maintenance of the facilities. The committee does not become involved in program development or administration.

Staffing

In addition to the secretary/treasurer, the Township employs two part time people to assist with road maintenance and general Township maintenance including mowing. The Township also employs a part time zoning officer and part time clerk.

Emergency Management Coordinator

The emergency management coordinator is responsible for developing and maintaining plans and coordinating activities relating to significant emergencies that may arise within or around the Township. The emergency management coordinator is also the fire marshal.

Police Force

West Sadsbury Township and Atglen Borough have formed a regional police force to serve the needs of both communities. The Township makes space available in the Township building for a police office and pays a monthly fee for the police service.

The organization, operation and staffing of the government in the Township is typical of many communities of similar size. The elected and appointed officials serve with limited compensation, the work force is primarily part time and services are limited to the basics.

PHILOSOPHY

The philosophy of the Township can be viewed in two parts. On the one hand the Supervisors are committed to meeting the present and short term needs of the residents in a cost effective and reasonable manner. This includes items such as: personnel, equipment, facilities, enforcement of regulations, operation of the functions of internal governmental elements, police protection, fire protection etc. On the other hand, the Supervisors are committed to meeting the long term needs of the residents through planning and preparation for the future. This would encompass striving to achieve a reasonable balance between accommodating the rights of property owners to use and develop their land and reasonable controls regulating the extent and intensity of development and the protection of sensitive natural and historic resources. The Supervisors intend to strike and maintain that balance through the creation, implementation and enforcement of regulations that are founded on sound planning principals that will guide future growth and use of the land and other natural and historic resources. In general, the residents would like to maintain the generally rural/agricultural nature of the Township. However, they support growth, particularly commercial, which is directed to specific areas of the Township eg. Route 30 corridor and along the railroad/PA Route 372 area.

BUDGET OF THE TOWNSHIP

The financial statements of the Township for the last three years are summarized as Table VI-1. The table lists all of the major revenue and expense categories and ending year balances.

The real estate in the Township has an assessed valuation of \$7,950,940. The tax rate for 1991 was 8 mills on real estate for general purposes. The statutory limit on the tax rate on real estate for general purposes in a Township of the second class is 14 mills. The current tax levy is \$63,608 on real estate. This is equivalent to 1 mill of tax generating \$7,951 of revenue. The total taxes collected during 1993 were: \$54,897 paid during the discount period, \$4,329 paid during the face amount period and \$1,626 paid during the penalty period. \$1,471 was collected from prior year not returned or liened and \$1,850 from returned or liened. The total real estate taxes collected were \$64,173. There were \$2,756 in taxes delinquent at the end of 1993. A summary of taxes levied is shown as Table VI-2.

The breakdown of assessed valuations is: \$4,259,880 for residential, \$1,422,520 for industrial, \$900,380 for commercial, \$1,250,260 for agricultural and \$298,890 for other. There is \$42,780 of nontaxable municipal property, \$137,640 of nontaxable church property and \$44,360 of nontaxable public utilities property.

The Township currently has no debt and therefore no debt service. The "Local Government Unit Debt Act" regulates borrowing by governmental units. The act has established that no limit exists on debt approved by the electors. However, limitations are imposed on the incurring of other debt. The borrowing base is computed by determining the gross revenue received and subtracting all applicable deductions to arrive at the total revenue as defined in section 102 (c)(16) of the Act for each year of the past three years. The total revenue for each year is then summed and divided by three to arrive at the arithmetic average which is then defined as the borrowing base in section 102 (c)(3) of the Act. The total non-electoral debt that a municipality may incur, cumulatively, is equal to 250% of the borrowing base or when combined with qualified lease rental debt, 350%.

The Township does maintain a capital reserve as shown in Table VI-1 as the year end fund balance. The Supervisors take a very conservative approach to budgeting and the finances of West Sadsbury Township. Historically, the current tax levy of 8 mills on real estate was adopted in 1942 and, obviously, has not changed in the past 50 years. The 1994 real estate tax levy remains at 8 mills. The revenue generated by licenses and permits tends to follow the general economic cycles. When the economy is strong and building is active, the associated revenue is up. Conversely, when the economy is weak and building is less active, the associated revenue is down. The intergovernmental transfers shown as revenue are primarily liquid fuels money for road projects. Since the revenue from this source is based on road miles in the Township, it will not change significantly. The major source of revenue, real estate tax, tends to generate a relatively constant level of income.

The Supervisors are conservative in spending and select one or two major projects each year for funding. In the past, road maintenance and improvements have been undertaken, the Township has become part of a regional police force, approximately 4 acres of ground were purchased for recreation and a baseball field and soccer field were constructed. The general government expenses for administration of government have remained rather constant.

The Supervisors do not anticipate any change in their philosophy regarding the finances of the Township. Likewise, they will continue to select one or two major projects each year for funding. The Township intends to continue its planning efforts to include an update to the Zoning Ordinance and Sewage Facilities Plan.

The Township generally budgets approximately \$1,000 per year for recreation. During 1991, 1990 and 1989 respectively, the Township has spent \$17,128, \$39,249 and \$1,000 on recreation. In 1991 the \$17,128 was spent for park maintenance and repairs plus the addition of some capital items of equipment. In 1990 the Township purchased 4.2 acres of ground from an adjoining property owner for \$100,000. The Township received a grant of \$39,900 from the County for the purchase. The balance is a mortgage with the former property owner. In 1991 the Township received a grant from DCA under the RIRA program for \$15,000. The grant was used in 1992, along with matching Township funds, to construct a baseball field and soccer field on the 4.2 acres of recently acquired ground. The project cost was \$63,900. Also in 1992 the Township received a grant from the County to undertake an Open Space, Recreation and Environmental Resources Plan. In 1992, \$1,000 was spent as a contribution to the library and \$120,497 was spent to pay the remaining mortgage and to pay for construction of the baseball/soccer field. In 1993, \$1,100 was spent as a contribution to the library and \$125 was spent for minor repairs at the park.

TABLE VI-1

	1993	1992	1991
REVENUES			
Taxes:			
Real Estate	\$ 199,869	\$ 203,926	\$ 179,465
Licenses and Permits	10,486	21,268	15,077
Fines and Forfeits	3,491	0	2,478
Interest, Rents, Royalties	26,254	28,380	33,990
Intergovernmental	21,470	34,479	71,549
Charges for Service	0	8,794	4,077
Miscellaneous	<u>48,622</u>	<u>10,842</u>	<u>11,981</u>
TOTAL REVENUES	<u>\$ 310,192</u>	<u>\$ 307,689</u>	<u>\$ 318,617</u>
EXPENDITURES			
General Government	\$ 74,544	\$ 67,306	\$ 77,858
Public Safety	100,384	74,303	79,254
Highways and Roads	29,377	64,890	48,305
Recreation	1,225	122,497	17,128
Miscellaneous	<u>41,598</u>	<u>10,364</u>	<u>3,721</u>
TOTAL EXPENDITURES	<u>\$ 242,128</u>	<u>\$ 339,360</u>	<u>\$ 226,266</u>
EXCESS OF REVENUES OVER EXPENSES	<u>\$68,064</u>	<u>(\$31,671)</u>	<u>\$ 92,351</u>
BALANCES ON HAND AS OF JAN 1	<u>\$ 701,974</u>	<u>\$ 633,910</u>	<u>\$ 522,344</u>

TABLE VI-2

TAX STRUCTURE

WEST SADBURY TOWNSHIP

Assessed Valuation	\$7,950,940
Township Real Estate Millage	8
Octoraro School District Millage	216
Per Capita	\$ 5
Real Estate Transfer Tax	$\frac{1}{2}$ %
Occupation Tax Millage	0
Chester County Real Estate Millage	25.75
Earned Income (school)	1

The Township currently has no bonded debt.

TOWNSHIP COMPREHENSIVE PLAN

The Township participated in the Octoraro Region Comprehensive Plan in 1975 prepared by the Octoraro Regional Planning Commission. The Township also completed a comprehensive land use plan prepared by Gallagher Associates in 1978. The 1978 study contained sections which address: natural resources, existing land use, population, housing, socio-economics, transportation and community facilities. There is also a section which contains: a statement of goals and objectives, relationship to the Octoraro region, transportation plan, community facilities, development suitability, future land use and plan implementation. In addition a series of maps were prepared.

The Future Land Use Plan in the Township's current Comprehensive Plan and the Township's Zoning Map correspond almost exactly as to residential, commercial, industrial, and industrial-commercial designations. Because of this, the following discussion of how the Township's open space network compares to the Township Zoning Ordinance and Map is also, in effect, a discussion of how the Township's open space network compares to the Future Land Use Plan in the Comprehensive Plan.

TOWNSHIP ZONING ORDINANCE

The Township first adopted a zoning ordinance in 1978. Since that time the ordinance has been amended several times with the most recent change being adopted in 1991. The ordinance has been amended to incorporate changes resulting from Act 170 of 1988.

Because the protection of the resources identified in Chapter IV is important to the Township, the Zoning Ordinance has been analyzed as to how its provisions affect resource protection.

Part 8 of the Township of West Sadsbury Zoning Ordinance contains Environmental Regulations and Floodplain Regulations. With regard to steep slopes, for areas between 15% and 25% slope, no more than 30% of such areas are to be developed and/or regraded or stripped of vegetation. For areas of 25% or more slope, no more than 10% of such areas may be developed and/or regraded or stripped of vegetation.

A minimum of 34% of woodland, as defined by the Zoning Ordinance, is required to be preserved in a natural unimproved condition on each parcel of land. Up to 66% of woodland is permitted to be cleared from a tract of land.

Lakes, ponds, or watercourses are required to be left as permanent open space. No development, filling, piping, or diverting is permitted, except for required roads.

The shorelines of lakes (bodies of water least two (2) acres in area) to a depth of one hundred fifty feet (150') from the shorelines are to contain no more than fifteen percent (15%) impervious surfaces. At least eight percent (80%) is to be maintained as permanent open space. This provision applies to wetlands of less than two (2) acres in size.

The shorelines of ponds (bodies of water less than two (2) acres in area) shall, to a depth of seventy-five feet (75') from the shorelines, contain no more than ten percent (10%) impervious surfaces. At least eight percent (80%) is to be maintained as permanent open space. This provision applies to wetlands of less than two (2) acres in size.

Prime agricultural soils are required to have 80% of their extent maintained as permanent open space.

It is required that wetlands, as defined in the Zoning Ordinance, shall not be graded, regraded, altered, filled, or otherwise developed except as permitted by the Pennsylvania Department of Environmental Resources and the U.S. Army Corps of Engineers. All wetlands are to be buffered from surrounding development by an unimproved, vegetated strip of land. In residential districts the buffer strip is to have a minimum width of 50 ft. and in nonresidential districts the buffer strip is to have a minimum width of 100 ft.

In areas with limestone formations, development utilizing subsurface sewage disposal is not to occupy more than 10% of the site.

The Floodplain Regulations establish the 100-year floodplain as an overlay to the existing underlying zoning map. Within the floodplains, permitted uses include customary agricultural operations that do not require permanent structures; pastures, grazing land, outdoor plant nursery, and orchard; wildlife sanctuary, woodland preserve, arboretum; forestry, lumbering, and reforestation, excluding storage and mill structures; game farm, hatchery, hunting and fishing preserves, excluding structures; recreation use such as park, day camp, picnic grove, golf course, hunting, fishing and boating club, excluding structures and buildings; portions of lots provided that no required front, side, or rear yard shall be located within the floodplain and that no building or structure shall be placed within 50 ft. of the floodplain; pervious parking lots; accessory uses customarily incidental to the permitted uses when approved as a special exception.

Uses permitted by special exception within the floodplains include grading or regrading or land; sealed public water supply wells and water lines; utility transmission lines; storm sewers; sanitary sewers and manholes when properly sealed against seepage or leakage; dams, impoundment basins, culverts and bridges approved by Pennsylvania Department of Forests and Waters, Water and Power Resources Board when the Board has jurisdiction.

No part of any on-site sewage system is to be located within any identified floodplain area except in strict compliance with all State and local regulations for such systems. If any such system is permitted, it is to be located so as to avoid impairment to it, or contamination from it, during a flood.

Any new or substantially improved structure which will be used for the production or storage of any of the following dangerous materials or substances, or which will be used for any activity requiring the maintenance of a supply (more than 550 gallons or other comparable volume or any amount of radioactive substances) of any of the following dangerous materials or substances on the premises is prohibited in floodplains: acetone, ammonia, benzene, calcium carbide, carbon disulfide, celluloid, chlorine, hydrochloric acid, hydrocyanic acid, magnesium, nitric acid and oxides of nitrogen, petroleum products (gasoline, fuel, oil, etc.), phosphorus, potassium, sodium, sulphur and sulphur products, pesticides (including insecticides, fungicides, and rodenticides), radioactive substances, insofar as such substances are not otherwise regulated.

Part 9 of the Township Zoning Ordinance contains a Residential Site Capacity Determination. As part of the Determination, resource protected lands are to be mapped and measured for the purpose of determining the amount of open space needed to protect them. The resources and the open space ratios listed are as follows:

<u>Resource</u>	<u>Open Space Ratio</u>
Floodplains	1.00
Floodplain soils	1.00
Streams	1.00
Lakes or ponds	1.00
Wetlands	1.00
Limestone	0.90
Steep slopes (25% or more)	0.90
Woodland	0.34
Agricultural soil	0.34
Pond shore	0.80
Lake shore	0.70
Steep slope (15% or more)	0.70

Such a site capacity determination is not provided for nonresidential development. The Residential Site Capacity Determination is consistent with Part 8, Environmental Regulations and Floodplain Regulations, in preserving 70% of slopes between 15% and 25%, 90% of slopes of greater than 25%, and 34% of woodlands. The Environmental Regulations indicate that development utilizing subsurface sewage disposal shall occupy not more than 10% of the site in limestone areas, while the Residential Site Capacity Determination indicates a 0.90 open space ratio for limestone areas. The Environmental Regulations indicate 80% of prime agricultural soils are to be maintained as permanent open space. The Residential Site Capacity Determination indicates a 0.34 open space ratio. The Environmental Regulations and Residential Site Capacity Determination both indicate 100% preservation of lakes or ponds and 80% of pond shore; however, the Environmental Regulations indicate preservation of 80% of lake shore and the Residential Site Capacity Determination indicates an open space ratio of 0.70. The Residential Site Capacity Determination indicates a 1.00 open space ratio for wetlands.

The Environmental Regulations indicate that wetlands shall not be developed except as permitted by the PaDER and U.S. Army Corps of Engineers.

In the Township of West Sadsbury Subdivision and Land Development Ordinance Site Capacity Determinations are included for residential sites and for industrial/commercial sites. In both determinations, resource protection land is to be mapped and measured for the purpose of determining the amount of open space needed to protect it. The resources and the open space ratios are given below.

<u>Residential</u>		<u>Industrial/Commercial</u>	
<u>Resource</u>	<u>Open Space Ratio</u>	<u>Resource</u>	<u>Open Space Ratio</u>
Floodplains	1.00	Floodplains	1.00
Floodplain soils	1.00	Floodplain soils	1.00
Streams	1.00	Streams	1.00
Lakes or ponds	1.00	Lakes or ponds	1.00
Wetlands	1.00	Wetlands	1.00
Limestone	.90	Limestone	.90
Steep slope (15% or more)	.90	Steep slope (15% or more)	.90
Woodland	.34	Woodland	.80
Agricultural soil	.34	Agricultural soil	.80
Pond shore	.80	Pond shore	.80
Lake shore	.70	Lake shore	.70
Steep slope (15%-25%)	.70	Steep slope (15%-25%)	.70
Steep slope (8%-15%)	.50	Steep slope (8%-15%)	.50

The open space ratios for the industrial/commercial sites are the same as for the residential sites except for woodland and agricultural soils. The open space ratios for industrial/commercial sites are .80 for both resources and the open space ratios for residential sites are .34 for both resources.

The Environmental Regulations and Floodplain Regulations within the Zoning Ordinance, Residential Site Capacity Determination in the Zoning Ordinance, and Industrial/Commercial Site Capacity Determination and Residential Site Capacity Determination in the Subdivision and Land Development Ordinance currently afford a degree of protection to some existing municipal resources and lands.

The protection afforded is not permanent, as amendments can be made to the Zoning Ordinance and variances can be requested of the Zoning Hearing Board. Amendments can be made to the Subdivision and Land Development Ordinance and waivers can be requested of the Board of Supervisors.

In the Zoning and Subdivision Ordinances, the regulations address stream corridors, floodplains, wetlands, and the high yield aquifer (limestone area). Hydric soils are not specifically addressed, but would be afforded some protection as some would be identified as wetlands, floodplains, or high yield aquifer. Linear features would be protected as they fall within the floodplains. No protection is given to the fault lines.

Steep slopes and prime agricultural soils have been afforded some degree of protection. Wooded areas have been afforded a degree of protection.

Scenic, historic and cultural resources have not been afforded any protection. There is no consideration of scenic roads and vistas, nor historic sites, nor archeological sites.

The Township's existing zoning map does not identify any floodplains or other resources within the Township. Resources would only be identified through mapping done as part of this study as required of developers, or as referenced in the Zoning Ordinance (such as FEMA floodplain maps).

Most of the Township is zoned Residential, which provides for single family detached development on 1-acre minimum lots with on-lot sewage disposal and water supply, and a wide range of dwelling types at higher densities if off-site sewage disposal and water supply is available. Permitted nonresidential activities include agriculture, golf courses, cemeteries, public utilities, and, by special exception, recreational uses, schools, churches, government uses, and community buildings.

Industrial zoning is found in the southern portion of the Township from Parkesburg Borough to Atglen Borough south of the railroad tracks. A 4-acre minimum lot size has been established. Production, processing, cleaning, testing, repair, storage, and distribution uses, laboratories, trucking concerns, and contractor businesses are permitted by right. Special exception uses include transmitters, slaughtering of animals, salvage or junk yards, and residential dwelling units.

Neighborhood Commercial zoning is located south of Upper Valley Road just west of Parkesburg Borough and along the length of Route 30, except at the eastern portion of the Township. A 1-acre minimum lot size has been established. Residences, agriculture, personal services, restaurants, professional offices, medical clinics, schools, churches, community buildings, day-care centers, and utilities are permitted. By special exception, recreation uses, government uses, retail sales, and gas stations can be permitted.

Commercial zoning is found between Route 30 and Leike Road in the eastern portion of the Township. A 2-acre minimum lot size has been established. A wide range of commercial uses is permitted. By special exception, recreational facilities, wholesaling, government uses, and residential uses can be allowed.

Industrial/Commercial zoning has been established between Route 10 and Moscow Road north of Route 30 and between Route 41 and Gap-Newport Pike north of Atglen Borough. The minimum lot size is 4-acres. A mixing of commercial, greenhouse and nursery, wholesaling, laboratory, automotive, and publishing and printing uses is permitted. Recreational, governmental, and residential uses are permitted by special exception.

The Residential zoning classification throughout most of the Township, providing for 1-acre lots for single family residential development, or higher densities for a variety of dwelling types if offsite sewer and water are provided, is in itself inconsistent with the preservation of the resources which have been identified within the area zoned Residential. These resources include wooded areas, prime agricultural soils, water resources along the stream corridors, portions of the Conestoga Formation, potential archaeological sites, and only small areas of steep slopes. Protection is afforded the resources only through Environmental Regulations and Floodplain Regulations and Site Capacity Determination.

The Industrial designation in the southern portion of the Township could potentially present concerns for the resources within the Valley Creek corridor and for the Conestoga Formation, given the potential for pollution from industrial activities. There is a lack of industrial performance standards within the zoning ordinance. As in the case of the Residential district, protection is afforded through the Environmental Regulations and Floodplain Regulations. While the subdivision ordinance contains Industrial/Commercial Site Capacity Determination, the zoning ordinance does not.

The Neighborhood Commercial zoning along most of the length of Route 30 conflicts with the scenic vista which has been identified along Route 30 near Swan Road and the Moscow School site.

The Industrial/Commercial zoning east of Moscow Road conflicts with the scenic vista which has been identified at the Township building and park site on the west side of Moscow Road. A portion of the Buck Run stream corridor is located within the Industrial/Commercial zone.

In the Residential district, building setbacks range from 50 ft. with on-site sewage disposal to 35 ft. with off-site facilities. This could potentially conflict with the designation of Strasburg, Swan, and Creek Roads as scenic roads.

In general, the land within West Sadsbury Township does not manifestly provide severe limitations to building. Generally, there are few areas of steep slope within the Township. This is probably the reason why most of the Township is zoned for 1-acre residential development with on-lot sewage disposal.

The Industrial area abuts rail facilities, reasonable road access via Lower Valley Road, developable land, and now contains several large industries.

The Neighborhood Commercial district along Route 30 fronts on the major traffic artery within the Township and contains commercial uses which have been scattered throughout the length of the district.

The Industrial/Commercial district between Route 10 and Moscow Road was established because of the proximity to the major traffic arteries Route 10 and Route 30 and the presence of developable land. Actual development has been confined to the Route 30 area.

TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

The Township first adopted a Subdivision and Land Development Ordinance in 1979. Since that time, the Ordinance has been amended several times with the most recent change being adopted in 1991. The Ordinance has also been analyzed as to the protection it affords to the Township's resources.

In the Township Subdivision and Land Development Ordinance, for sketch plans, applicants are required to indicate any significant natural or man-made features that would affect the proposal and provide existing topography, soils types, and natural features. At preliminary plan stage, a Site Capacity Determination, as previously outlined, is required for residential development and industrial/commercial development. In addition, contour lines, tree masses, floodplains, wetlands, and other significant structures or features are required to be shown. At final plan stage, tree masses, floodplains, wetlands, and other significant structures or features are required to be shown.

In the design standards portion of the ordinance, it is indicated that the policy of the Township is the "preservation and proper allocation and utilization of unusual and important physical or topographical features of undeveloped land as held for the common recreation enjoyment of the adjacent residents or the Township at large."

There is also a design standard that "where a subdivision is traversed by a watercourse, there shall be provided a drainage easement for right-of-way conforming substantially with the line of such watercourse and of such width as will be adequate to preserve natural drainage and provide sufficient width for maintenance."

PROTECTED MUNICIPAL LANDS MAP

The Protected Municipal Lands Map indicates major utility transmission lines within the Township and municipally-owned land. There are no agricultural security areas within the Township, no conservation easements within the Township, and no registered historic districts within the Township. An agricultural security area is currently under consideration.

UTILITY TRANSMISSION EASEMENTS

Three Transcontinental gas lines traverse the Township in the southern portion of the Township. Another gas line branches off the main lines and heads southwardly into Highland Township. A Coatesville Authority water line traverses the Township south of the railroad line in the southern portion of the Township.

MUNICIPAL LAND

Land owned by the Township is indicated on the map. The Township Building/Park site is located on the west side of Moscow Road, north of Route 30. The fire pond site is located on the north side of Route 30, west of Blackhorse Road. The Township also owns an undeveloped site north of Upper Valley Road west of the Lenover area.

The Borough of Atglen owns land along Church Road between Swan Road and Lenover Road. This land contains the Borough's water supply. Care should be taken to protect the borough's water supply from future land uses on surrounding land which could affect that supply.

RECREATION LAND STANDARDS

The purpose of detailing population-based standards for park areas and recreation facilities is to compare those standards to the Township's existing land facilities, which will be inventoried in the next section of this report.

The standards will be based upon information presented in the Chester County Open Space and Recreation Study. In the development of standards, the Study classified each municipality in the County as to whether it was rural, rural-suburban, suburban, or urban. A major factor was the range of population per square mile. For the rural settlement pattern, the population per square mile was up to 375. For rural-suburban settlement pattern, the range of population per square mile was 375 to 879. For the suburban settlement pattern, the range of population per square mile was 880 to 3,264. For the urban settlement pattern, the range of population per square mile was over 3,264.

The statistical definition of settlement patterns presented in the Open Space and Recreation Study is given below:

TABLE VI-3
STATISTICAL DEFINITION OF SETTLEMENT PATTERNS

<u>Settlement Pattern</u>	<u>Range Of Units Per Acre</u>	<u>Average Number Persons Per House- hold (preliminary 1980 data)</u>	<u>Range of Population Per Square Mile</u>
Rural	1 unit/5 acres	3.00	375
Rural-Suburban	1 unit/5 acres - 1 unit/2 acres	2.85	375-879
Suburban	1 unit/2 acres	2.65	880-3,264
Urban	1 unit/1/2 acre	2.46	Over 3,264

Several types of open space are examined in the Open Space and Recreation Study. One of these is Background Open Space. Background Open Space is that which is visible to the Township residents and perceived as open space by them. It establishes the character of the community. As development occurs in a municipality, if it wishes to sustain a rural character, it is necessary to preserve the perceived open space. Growth must be planned and directed so that the basic open space character is not lost.

Major components of the Background Open Space include farmland, stream valleys, and woodlands.

The Background Open Space Standards established by the County are given below:

**TABLE VI-4
BACKGROUND OPEN SPACE STANDARDS**

	Settlement Pattern			
	Urban	Suburban	Rural-Suburban	Rural
Minimum Percent of Total Land Area in Background Open Space	*	35%	60%	80%

*There is no minimum for urban municipalities although it is desirable for them to retain open lands.

No minimum was established for urban municipalities. Thirty-five percent (35%) was established for suburban municipalities, sixty percent (60%) for rural-suburban municipalities, and eighty percent (80%) for rural municipalities.

Parks are another form of open space. The park area standards for Chester County presented in the Open Space and Recreation Study are given below:

**TABLE VI-5
PARK AREA STANDARDS FOR CHESTER COUNTY**

<u>Park Type</u>	<u>Settlement Patterns</u>		
	<u>Rural</u>	<u>Suburban and Rural Suburban</u>	<u>Urban</u>
Regional Parks	20 acres/ 1000 people	(applies to entire region)	
Subregional parks	8.5 acres/ 1000 people	(applies to entire County)	
Community parks	6.0 acres/ 1000 people	4.5 acres/1000 people	3.0 acres/ 1000 people
Neighborhood parks	Not required	3.5 acres/1000 people	2.5 acres/ 1000 people
Urban residential parks	Not required	Not required	0.25 acres/ 1000 people
Urban center parks	Not required	Not required	No quantitative Standards

Regional parks would serve an area greater than one County, and regional parks serving Chester County would also serve other portions of southeastern Pennsylvania. Such parks are usually provided by federal or state governments because of their regional service area. Regional parks typically provide a variety of outdoor recreational opportunities, particularly those requiring large land or water areas. Emphasis should be placed on recreation opportunities generally beyond the scope of those provided at local parks, including such opportunities as camping, boating, and swimming. The regional park standards in the Open Space and Recreation Study are given below:

TABLE VI-6
REGIONAL PARK STANDARDS

Acreage standard	20 acres/1000 persons
Minimum size	1000 acres
Service radius	30 miles (60 minute drive)
Service area	2800 square miles
Maximum population	No maximum

The regional parks serve an entire region and no standards have been established for a municipality to provide regional park acreage. Existing regional parks in the Chester County area include French Creek State Park, Ridley Creek State Park in Delaware County, Evansburg State Park in Montgomery County, and Marsh Creek State Park. No regional park areas have been indicated within West Sadsbury Township in the Open Space and Recreation Study.

Subregional parks provide relatively large tracts of public open space within a short drive of all residents and are intended to fill the gap between regional parks and community parks. They should be geared to regular use on weekdays as well as weekends, for group outings, picnicking, camping, fishing, passive field activities, jogging, hiking and other trail uses. The Open Space and Recreation Study Subregional Park Standards are given below:

TABLE VI-7
SUBREGIONAL PARK STANDARDS

Acreage needs	8.5 acres/1000 persons
Minimum size	100 acres
Service radius	7.5 miles (15 minute drive)
Service area	177 square miles
Maximum population served	100,000

Standards for provision of subregional parks at a municipal level have not been established since the subregional park is intended to serve the entire County. Examples of existing subregional parks are Hibernia Park, Warwick Park, and Nottingham Park, in the western portion of the County. Because of the proximity of Hibernia Park, West Sadsbury was not indicated in a recommended subregional park development service area. No portions of a regional park were indicated within West Sadsbury Township.

Community parks are intended to provide local places for organized, casual group and individual sports and exercise, and serve local outdoor recreation needs on a regular basis. Active and passive recreation uses are typically provided, with an emphasis on active recreation. Community parks are typically the focus for community recreation programs. Indoor facilities for community meetings, scouts, arts and craft, and similar activities are considered appropriate. It is also appropriate to provide undesignated natural or landscaped areas. It is desirable to provide community parks as central to their service area as possible. In more developed areas, it is desirable to provide pedestrian walkways and trails for safe access and locate the parks away from major arterials unless safe means of crossing busy roads are provided. West Sadsbury Township does not have the density which makes it feasible to provide pedestrian systems. Community parks are typically large, fairly level and well-drained land areas where playing fields and heavily used areas can be accommodated.

Standards for community parks from the Open Space and Recreation Study are given below:

**TABLE VI-8
COMMUNITY PARK STANDARDS**

Acreage needs	
Urban	3 acres/1000 persons
Suburban	4.5 acres/1000 persons
Rural-Suburban	4.5 acres/1000 persons
Rural	6 acres/1000 persons
Minimum size	20 acres
Service radius	2.5 miles (5 minutes drive or 30 minute walk)
Service area	20 square miles
Maximum population served	25,000

For rural areas like West Sadsbury, a standard of 6.0 acres/1000 people has been established. Minimum size is recommended to be 20 acres and the service radius 2.5 miles (5 minutes drive or 30 minute walk). The service area would be 20 square miles, and maximum population served 25,000. One community park would be appropriate for West Sadsbury Township.

Typical community park facilities as identified in the County Open Space and Recreation Study are given below. The actual number of playing fields, courts, and special facilities provided at a community park should be based upon a careful analysis of community needs.

TABLE VI-9
TYPICAL COMMUNITY PARK FACILITIES

<u>FACILITY</u>	<u>AREA IN ACRES</u>	
	If Park Adjoining School	If Separate Park
Multi-use playing fields	1.00	10.00
Tennis courts (4-6)	1.00	1.00
Multi-use paved courts	1.25	1.75
Play apparatus	.75	.75
Other facilities (Senior Citizens' area, archery range, outdoor classroom, amphitheater area, swimming pool, etc.)	2.00	2.00
Picnic area	2.00	2.00
Landscaped and undesignated space	7.00	11.50
Offstreet parking	1.50	3.00
Recreation parking	*	1.00
TOTAL	19.50	37.00

*If park adjoins school, this facility will usually be provided at the school.

Source: Robert Buechner (ed.), National Park Recreation and Open Space Standards (NRPA) 1971.

The County Open Space and Recreation Study had a Recommended Community Park Development site in West Sadsbury Township south of Route 30 and west of Black Horse Road. The County considered the park at the Township Building a neighborhood park, and the community park would have provided the community park which standards indicated the Township should have. The Township has determined that the park at the Township Building will be developed as the Township's community park. As noted below, there are no standards which indicate the need for a neighborhood park in the Township at this time.

The neighborhood parks typically provide spaces and facilities for recreation close to home, and should include sitting areas for adults and parents with young children, play areas for children, and spaces for limited organized sports and games. Neighborhood parks provide a focus for the social life of the neighborhood, and typically, most of the active recreational facilities are for preschool and not elementary school children. Active recreation facilities for older children and adults can be included, but are more often found at community parks.

Neighborhood parks are typically not provided in rural areas, where residential densities are generally too low to afford a walking distance service radius. A 5-acre minimum size is established, with a 10-acre minimum recommended. Every 5-10 acres of need as determined by standards can be treated as necessitating one neighborhood park. Where feasible, each geographically distinct neighborhood should be served by a neighborhood park.

It is desirable to provide landscaped or natural buffered areas between different park activity areas and between neighborhood parks and adjoining land uses. Sufficient level land is needed for court and field areas. Play apparatus areas for children could be supplemented by areas designed for older children and/or adults with a full view of small children, yet located to avoid physical interference with the smaller children.

It is desirable to locate neighborhood parks so that wherever possible park users will not have to cross heavily traveled roadways or rail lines to reach the neighborhood parks. The facilities provided at the neighborhood park should reflect the demographics of the service area of each park and the recreation needs met at other parks and recreation areas within the community.

The neighborhood park standards and typical neighborhood park facilities presented in the Open Space and Recreation Study are given below:

TABLE VI-10
NEIGHBORHOOD PARK STANDARDS

Acreage Needs	
Urban	2.5 acres/1000 people
Suburban	3.5 acres/1000 people
Rural-Suburban	3.5 acres/1000 people
Rural	No standard
Minimum size	5 acres
Service radius	1/2 mile, 12 minute walk
Service area	1 square mile
Maximum population	5,000

TABLE VI-11
TYPICAL NEIGHBORHOOD PARK FACILITIES

<u>FACILITY</u>	<u>AREA IN ACRES</u>	
	If Park Adjoining School	If Separate Park
Multi-use playing fields	*	5.00
Paved courts	.50	.50
Play apparatus	.50	.50
Other facilities (Senior Citizens' area, outdoor classroom, picnic area)	2.50	2.50
Landscaped and undesignated space	3.65	4.95
Offstreet parking	*	*
Recreation building	*	*
TOTAL	7.15	16.00

*If park adjoins school, this facility will usually be provided at the school.

Source: Robert Buechner (ed.), National Park Recreation and Open Space Standards (NRPA) 1971.

The final type of park identified in the Open Space and Recreation Study is Urban Parks, which are further differentiated into urban residential parks and urban center parks. Urban parks are very small parks in very densely developed areas. Urban residential parks are small parks to which people walk, which supplement limited "backyard" recreational opportunities in urban residential areas. They primarily serve the daytime recreation needs of senior citizens and pre-school children with supervising adults. The urban residential park standards found in the Open Space and Recreation Study are provided below.

TABLE VI-12
URBAN RESIDENTIAL PARK STANDARD

Acreage Needs	
Urban	1/4 acre/1000 people
Suburban	Not required
Rural-Suburban	Not required
Rural	Not required
Minimum size	1/4 acre or one lot
Service radius	1/4 mile
Maximum population served	2,000

For a rural community such as West Sadsbury Township, urban residential parks are not required.

Urban center parks are also not required for rural communities such as West Sadsbury Township. The urban center parks are small parks or malls that primarily serve the daytime needs of shoppers, workers, students, and others who use urban centers and activity centers. Typical activities would be resting, eating lunch, talking, and watching people. No population-based standards were presented for urban center parks. It is recommended that urban center parks be provided at all major activity centers, including downtown business districts, large shopping centers and malls, business and office parks and campuses, and other concentrations of employment.

The table below presents population density for West Sadsbury Township. For the year 1990, the U.S. Census figure of 2,160 is used. For the year 2000, 2010, and 2020, population projections of the Chester County Planning Commission have been used. Dividing the population by the 10.7 square miles within the Township, gives a density in persons per square mile in each year. In each year the settlement pattern of the Township is rural, as the density of persons per square mile falls below the standard of 375. In the year 2020, the Township comes very close to becoming rural-suburban.

TABLE VI-13
WEST SADBURY TOWNSHIP
POPULATION DENSITY

<u>Year</u>	<u>Population¹</u>	<u>Persons Per Square Mile²</u>	<u>Settlement Pattern</u>
1990	2,160	201.9	Rural
2000	2,670	249.5	Rural
2010	3,220	300.9	Rural
2020	3,960	370.1	Rural

¹Future population based upon population projections of Chester County Planning Commission.

²Based upon Township area of 10.7 square miles.

Based upon the rural classification, the following table gives park area standards for West Sadsbury Township in the years 1990, 2000, 2010, and 2020.

TABLE VI-14
WEST SADBURY TOWNSHIP
PARK AREA STANDARDS

<u>Year</u>	<u>Background Open Space</u>	<u>Community Park</u>	<u>Neighborhood Park</u>
1990	80%	6 acres/1000 people	-
2000	80%	6 acres/1000 people	-
2010	80%	6 acres/1000 people	-
2020	80%	6 acres/1000 people	-

In each year, background open space is 80%. The standard for community park is 6 acres/1000 people. There is no standard for neighborhood park because the Township is considered rural.

Community park standard acreage requirements for West Sadsbury Township are given below.

TABLE VI-15
WEST SADSBRURY TOWNSHIP
COMMUNITY PARKS - STANDARD ACREAGE REQUIREMENTS

<u>Year</u>	<u>Acreage</u>
1990	13
2000	16
2010	19
2020	24

In the year 1990 the required acreage was 13. The figure increases to 16 acres in 2000, 19 acres in 2010, and 24 acres in 2020, based upon the requirement of 6 acres/1000 people in the Township.

In the Chester County Open Space and Recreation Study standards were presented for certain recreational facilities, including baseball and softball fields, football fields, soccer fields, basketball courts, tennis courts, volley ball courts, and swimming areas. These standards included facility size, capacity, and standard per 1000 population. For the baseball and softball fields the standard was 0.5 fields/1000 population, for football fields 0.4 fields/1000 population, for soccer fields 0.5 fields/1000 population, for basketball courts 0.4 courts/1000 population, for tennis courts 0.5 courts/1000 population, for volley ball courts 0.3 courts/1000 population, and for swimming areas 0.2 swimming areas/1000 population.

The standards from the Open Space and Recreation Study are given below:

BASEBALL AND SOFTBALL FIELDS

Standard Field Sizes

Regulation hardball	2.8 acres
Junior hardball	1.4 acres
Regulation softball	1.8 acres
Junior softball	0.8 acres

Capacity

90 persons per field per day, involving 18 persons per field times a daily turnover of 5.

Standard

0.5 fields per 1000 population

FOOTBALL FIELDS

Standard Field Sizes

Regular football	2.0 acres
Touch football	1.4 acres

Capacity

88 persons per field per day, involving 22 persons per field times a daily turnover of 4.

Standard

0.4 fields per 1000 population

SOCCER FIELDS

Standard Field Size

Regulation soccer 1.4 acres

Capacity

108 persons per field per day, involving 24 persons per field times a daily turnover of 4.5.

Standard

0.5 fields per 1000 population

BASKETBALL COURTS

Standard Court Size

Regular full court 0.2 acre

Capacity

72 persons per court per day, comprised of 12 persons per court times a daily turnover of 6.

Standard

0.4 courts per 1000 population

TENNIS COURTS

Standard Court Size

Two regulation courts 0.25 acre

Capacity

16 persons per court per day, comprised of 3.2 persons per court, on the average, times a daily turnover of 5.

Standard

0.5 courts per 1000 population

VOLLEYBALL COURTS

Standard Court Size

Regular court 0.1 acre. Lawn areas may be used as well
as formal court surfaces

Capacity

90 persons per court per day, comprised of 18 persons per court times a daily turnover of 5.

Standard

0.3 courts per 1000 population

SWIMMING AREAS

Swimming areas include not only pools but also swimming beaches at both natural and artificial water bodies. Only 30 to 40 percent of the bathers at a swimming area are actually in the water at any one time. Of those in the water, few are actually swimming. Other recreational activities, particularly picnicking, are very important in conjunction with swimming. Where possible picnic and swimming areas should be provided adjacent to each other.

Diving areas should be provided where practical. They should be separated from main swimming and wading areas.

For safety purposes, lifeguard and telephone facilities should be provided at all swimming areas. Parking and sanitary facilities are also essential. Food service concessions and dressing and shower facilities should be considered for inclusion. General deck or beach area should equal approximately twice the water surface area at any swimming area.

Capacity

One swimmer per 30 square feet of water surface area or 1,470 swimmers per acre. With a daily turnover of 2.8, this computes to 4,116 swimmers per acre of water per day, or 780 swimmers per 50 meter regulation size pool.

Standard

0.2 swimming areas per 1000 population.

Based upon the standards for facilities per 1000 population, and the population figure for each year previously presented for the Township, estimated standard needs for selected recreational facilities for West Sadsbury Township has been calculated and are presented below:

TABLE VI-16
WEST SADBURY TOWNSHIP
ESTIMATED STANDARD NEED FOR SELECTED RECREATIONAL FACILITIES

FACILITY

<u>Year</u>	<u>Baseball and Softball Fields</u>	<u>Football Fields</u>	<u>Soccer Fields</u>	<u>Basketball Courts</u>	<u>Tennis Courts</u>	<u>Volleyball Courts</u>	<u>Swimming Areas</u>
1990	1	1	1	1	1	1	0
2000	1	1	1	1	1	1	0
2010	2	1	2	1	2	1	1
2020	2	2	2	2	2	1	1

As an example, in the year 1990, based upon the above standards, West Sadsbury Township should have one baseball and softball field, one football field, one soccer field, one basketball court, one tennis court, one volleyball court, and need provide no swimming areas. The standard is the same for the year 2000. By the year 2010, the need for baseball and softball fields has increased to 2, the need for soccer fields has increased to 2, the need for tennis courts has increased to 2, and a swimming area is required. By the year 2020, the need for football fields increases to 2 and the need for basketball courts increases to 2.

In an appendix, recreation standards published by the National Recreation and Park Association (NRPA) in Recreation, Park, and Open Space Standards and Guidelines are presented. The NRPA suggests that as a minimum a "core" system of parklands with a total of 6.25 to 10.5 acres of developed open space per 1000 population be provided. This is generally consistent with the County Open Space and Recreation Study recommendation of 6.0 acres of community park required for rural communities such as West Sadsbury Township.

The NRPA recognizes three types of local/close-to-home space, mini-parks, neighborhood parks/playground, and community park. The mini-park would correspond to the urban park noted in the Chester County Open Space and Recreation Study. The neighborhood park would correspond to the neighborhood park identified by the County, and the community park would correspond to the community park established by the County.

The NRPA also presented standards for regional open space and unique open space which could be local regional, such as linear parks, special use areas, and conservancy areas. The NRPA standards also present activity/facility design standards for such facilities as basketball courts, baseball fields, and multiple recreation courts.

INVENTORY OF EXISTING RECREATION CONDITIONS

Lands And Facilities

The existing public park areas and recreation facilities include the West Sadsbury Township Municipal Park off Moscow Road, a 7 acre open space site off Upper Valley Road, and a 4 acre open space site containing a fire pond off Lincoln Highway (Route 30).

The West Sadsbury Township Municipal Park is approximately 8 acres in size and includes a fenced ball field with an over-lapping soccer field; a pavilion with 4 picnic tables; a playground area with a climbing apparatus, sand box, jungle gym, see saw, tire swing set and a modular play apparatus; six picnic tables, two grills, a Bar-B-Q pit; seven benches; parking for 12-15 vehicles; and an outdoor ice skating area. Proposed facilities include a second pavilion, expansion of the parking lot, and an exercise course. A copy of the plan of the park is included at the end of this report.

The Open Space Site off Upper Valley Road is an undeveloped seven acre site.

The Open Space Site off Lincoln Highway is a four acre undeveloped site containing a small fire pond. No recreation is planned or anticipated at the site.

In addition to the public park area and recreation facilities, the Township contains the following private sites which have recreation use potential:

- Keystone Motel - outdoor basketball goal with grass surface - in very poor condition (Route 30 near Moscow Road).
- Private 1/2 acre pond off Zook Road
- Harold Picnic Grove off Upper Valley Road
- Curiosity Corner Daycare Center
- Our Lady of Consolation Church soccer field, on Strasburg Road
- Numerous small, shallow, narrow creeks (5)
- Outdoor basketball goals at private homes
- Outdoor play equipment at private homes
- Numerous small, 1/4 acre ponds on private farms (6-8)
- Private 1/2 acre Kauffman pond off Strasburg Road

TABLE VI-17
 WEST SADBURY TOWNSHIP
 INVENTORY OF PARK AREAS AND RECREATION FACILITIES

<u>Facility/Area Name or Type</u>	<u>Size</u>	<u>Amenities</u>	<u>Condition</u>
West Sadsbury Township Municipal Park	8 acres	Ball field/Soccer Field Pavilion with 4 tables Proposed Pavilion Playground Area Picnic Tables (6) Grills (2) Bar-B-Que Pit Benches (7) Ice Skating Area Parking (12-15)	Excellent
Upper Valley Road Open Space Site	7 acres	Undeveloped	N/A
Lincoln Highway Open Space Site	4 acres	Fenced Fire Pond	N/A
Keystone Motel	N/A	Outdoor Basketball Goal	Very Poor
Zook Road Pond Posted Private	1/2 acre	Benches, Gazebo, Bench Swing, Fishing Pier	Good

<u>Facility/Area Name or Type</u>	<u>Size</u>	<u>Amenities</u>	<u>Condition</u>
Creeks (5)	N/A	Undeveloped Narrow, Shallow	N/A
Private Homes	N/A	Basketball Goals	N/A
Private Homes	N/A	Playground Equipment	N/A
Private Farms	N/A	Ponds (6-8)	N/A
Harold Picnic Grove	1/4 acre	Swing Set Benches Tot Equipment Grill Play Meadow Grove of Trees	Good
Curiosity Corner Day Care Center	N/A	Fenced Play Area with modular unit 40' x 100'	Good
		Fenced Play Area with modular unit 20' x 20'	Good
Our Lady of Consolation Church	N/A	Soccer Field Non-regulation Size	Average
Kauffman Pond (Strasburg Road)	1/2 acre	Swimming Area	Good

Township residents also make use of the recreation facilities of the Parkesburg Park, which include 2 basketball courts, 2 baseball fields, 3 tennis courts, 1 soccer/football field, 1 pavilion, and swings and other playground equipment.

Recreation Programs

The organized recreation programs and services are limited at this time to two Girl Scout troops, one troop sponsored by the Township and one sponsored by Girl Scouts of America, and one Boy Scout troop sponsored by Our Lady of Consolation Church. Non-supervised recreation can and does occur within the Municipal Park off Moscow Road. Activities at the park are limited primarily to field games, picnicking and playground games. The undeveloped seven acre site off Upper Valley Road is available for nature activities such as bird watching and field hikes.

The Girl Scouts meet at the Township building during the fall, winter and spring. The Boy Scouts meet at the Church. Starting in spring, 1993, it is anticipated that Little League teams will use the baseball field at the Township park during the spring and summer.

Fishing occurs informally at the Octoraro Creek.

Some of the senior citizens in the Township participate in a senior citizen's group which meets at the Baptist Church in Parkesburg once a week. In addition, there are two card-playing groups in the Township which meet at private homes.

Recent national trends for the last five years have shown an increased interest and participation in recreation programs and activities stressing outdoor recreation, fitness and wellness routines, high risk/adventure recreation, senior citizen programs, programs for the handicapped, soccer, basketball, volleyball, jogging and biking. The trends seem to recognize the demands of the growing population of senior citizens and the general movement back to the great outdoors and active recreation pursuits.

The rural character of the Township is a positive factor in the satisfaction of individual citizen needs for open space and nature related recreation activities. The Municipal Park provides the opportunities for active and passive recreation programs in the outdoors;

however, the lack of indoor recreation facilities and direct recreation programming indicates a shortfall in the provision of year-round recreation programs for senior citizens, adults, youth and any citizen interested in fitness and wellness activities. The lack of indoor recreation facilities also severely restricts the ability to teach recreational skills to the citizens in the service area. Programs for the handicapped and those with other special needs are non-existent.

FINANCING

West Sadsbury Township has funded recreation facilities and contributed to recreation programs as needs/opportunities have been identified. Currently it does not fund any recreational programs. The annual budgeted amount for ongoing purposes has been minimal. The Township has not formulated and has not followed a five year capital budget for recreation related improvements. However, capital acquisitions and improvements have been made during the past several years.

	1988	1989	1990	1991	1992 ⁽¹⁾
Total Municipal Expenditures	157,756	210,257	308,222	226,266	280,797
Cultural-Recreation-General	500	1,000	0	1,652	1,000
Cultural-Recreation-Capital	0	0	39,249	15,476	54,531
Cultural-Recreation-Operating	1,000	1,000	1,000	1,000	1,000

(1) Budget figures; all others are actual figures

In 1992 the Township completed construction of a baseball/soccer field at a cost of \$63,900. The Township received a RIRA grant of \$15,000 toward the project. Also in 1992, the Township paid \$54,531 remaining on the mortgage for the 4.2 Ac of ground purchased in 1990. In 1991 the Township paid \$15,476 on the mortgage for the purchase of the ground. In 1990 the Township purchased approximately 4.2 Ac of ground adjacent to the existing Township building and park facilities for \$100,000. The Township received a grant of \$39,900 from Chester County toward the cost of acquisition of the site. In 1989 and 1988 there were no expenditures for capital items.

The Township has not participated financially in any cultural or recreational programs in the past. However, the Township facilities have been made available to and used by various community groups at no charge. The Township has contributed, in the past, to the expenses of the local library.

The Township will re-evaluate sponsoring and/or financially participating in cultural and recreational programs for the community. If the Township does institute such a program, policies will be adopted regarding the acceptance of gifts, philosophy of fees and charges, programs to be supported and the monetary allocation.

PERSONNEL

The Township does not employ any personnel specifically for recreational lands and facilities. There are presently two persons who work part time performing primarily road maintenance. These persons also provide maintenance of the recreational lands and facilities as and when needed.

Since there are no personnel specifically assigned to recreation related activities there are no established job descriptions, lines of authority, appraisal system, recruitment and hiring procedures or standards. Neither are there employee support related programs or policies such as: incentives, fringe benefits, insurance, salary, training, policy manual, performance reviews or other personnel administrative policies.

Should the Township decide to fund a person(s) full or part time in support of recreation programs and facilities then policies will be established relating to personnel matters as outlined above.

ADMINISTRATION

Responsibility for administration of the cultural, recreational facilities and programs of West Sadsbury Township rests with the Park & Recreation Committee. Presently, the three Township Supervisors constitute the committee.

The committee makes decisions concerning capital improvements to the facilities, establishes funding priorities and is responsible for public relations. From time to time the committee will make announcements concerning cultural and recreational opportunities and events occurring in nearby municipalities. There are no standing inter-municipal arrangements at the present time.

The committee is determined to undertake the necessary planning steps, including this study, to adequately prepare to meet the present and future cultural and recreational needs of the Township. The committee looks for opportunities, that are implementable, to acquire ground, improve facilities, expand facilities and to make existing facilities accessible to the community. The committee generally meets to review these matters and decides whether to hire professionals to perform the work or in some cases to use its own resources to address small projects. The procedures the committee uses vary on a case by case basis but always involves a consensus of the members.

MAINTENANCE

The current maintenance program is adequate and effective based on the current needs and extent of the facilities to be maintained. The maintenance program essentially involves mowing, trimming, minor equipment repairs and replacement, equipment safety checks and trash pick-up. There will be some additional maintenance associated with the new baseball/soccer field in future years.

Routine park, facility and equipment maintenance is the responsibility of the road crew which is comprised of two part time individuals. Likewise, the road crew handles special event maintenance. In some cases, the sponsor of the event is asked to provide additional help. However, by and large, special events do not occur often.

The road crew is also responsible for making sure that the site, facilities, equipment and maintenance equipment are kept safe and functional. To accomplish this, weekly inspections are made of the site and equipment. If items are found to be unsafe and corrective action can be taken immediately, then the corrective action is taken. If not, the equipment is taken out of service or the unsafe condition is isolated until corrective action can be taken.

Generally, the lands and equipment are in very good condition. Many of the items are relatively new or made from materials that hold up well over time. Proper maintenance has also extended their useful life. Normally, two to three hours per week are devoted to maintenance, three to four hours per week are devoted to grass and plant trimming and eight to ten hours per week are devoted to grass mowing. The maintenance program will need to be expanded as more equipment and facilities are added. The park committee reviews the maintenance program annually.

The following items of Township owned equipment are available for use in conjunction with park maintenance.

John Deere Mower	16 HP	42" cut	1 ea.
Ford Mower	16 HP	48" cut	1 ea.
Ford Tractor	32 HP	48" cut	1 ea.

Catapillar 965 Front end loader 1 ea.

International	10 T Dump Truck	1 ea.
International	12 T Dump Truck	1 ea.
International	5 T Dump Truck	1 ea.

EVALUATION OF RECREATION NEEDS

Regional Parks

Regional parks are not provided at the Municipal level. Existing regional parks in the Chester County area include French Creek State Park, Ridley Creek State Park in Delaware County, Evansburg State Park in Montgomery County, Susquehannock State Park in Lancaster County and Marsh Creek State Park.

Subregional Parks

Subregional parks are also not provided at a Municipal level because they are intended to serve the entire County. Existing subregional parks in western Chester County are Hibernia Park, Warwick Park, and Nottingham Park.

In addition, in the Lancaster County Open Space Plan, proposed Lancaster County subregional park sites are indicated at Welsh Mountain (200 acres southeast of Christiania in Eden, Bart, Colerain and East Drumore Townships) and Stewart Run and the Upper West Branch of the Octoraro Creek (northwest of the Township in East Earl, Caernarvon and Salisbury Townships).

Neighborhood Parks

No need for neighborhood parks has been established in West Sadsbury Township.

Urban Residential Parks

No need has been established for Urban Residential parks within West Sadsbury Township.

Community Parks

In Table VI-15, Community Parks-Standard Acreage Requirements, the requirements for community park acreage in the Township were presented. The existing Township community park along Moscow Road contains eight acres. The following table indicates the previously presented standard acreage requirement, the existing acreage of the park, and the deficit in community park acres.

TABLE VI-18
WEST SADBURY TOWNSHIP
COMMUNITY PARK ACREAGE NEEDS

	<u>1994</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>
Existing Acreage	8			
Standard Acreage Requirement	13	16	19	24
Deficit in Acres	5	8 (potential)	11 (potential)	16 (potential)

The acreage needs are 13 in 1994, 16 in the year 2000, 19 in 2010, and 24 in 2020. The current deficit is 5 acres. If no acreage were added to the park, the deficit would be 8 acres in 2000, 11 in 2010, and 16 in 2020.

The minimum recommended size of community park is 20 acres. The existing park is 8 acres, and it is recommended that the Township consider increasing the size of the community park to meet minimum requirements while also reducing the acreage deficit. If it is not possible to make arrangements to acquire additional land around or near the Township Park on Moscow Road or if it is not financially feasible for the acquisition to occur then the Township should consider developing the 7 acres Upper Valley Road site as a passive community park. The existing park could be used for primarily active recreational activities. In combination, the Township Park and Upper Valley Road site contain 15 acres, which exceed the current requirements of 13 acres. A deficit of only 1 acre would result in the year 2000 and 4 acres in the year 2010.

Typical facilities provided at a community park are multi-use playing fields, tennis courts, multi-use paved courts, play apparatus, picnic area, landscaped and un-designated space, and parking. These facilities are available at the park, with the exception of tennis courts and multi-use paved courts.

As stressed in the section on Recreation Standards, one community park will be sufficient for the Township through the year 2020, given the acreage requirements for the Township, the rural nature of the Township, the fact that there are no large population concentrations within the Township, and that generally most Township residents are within a short drive of the park. The service area for a community park is 20 square miles, and the Township contains 10.7 square miles. The maximum population to be served by a community park is 25,000, and the Township contains less than 3,000 people. The service radius for a community park is 2.5 miles, and only small portions of the Township are outside such service radius.

In Table VI-16, Estimated Standard Need For Selected Recreational Facilities within the Township was presented. Based upon the facilities available at the Township park, the following table indicating the estimated standard need and deficit for selected recreational facilities has been prepared.

TABLE VI-19
 WEST SADSURY TOWNSHIP
 ESTIMATED STANDARD NEED AND DEFICIT
 FOR SELECTED RECREATIONAL FACILITIES

FACILITY

<u>Year</u>	<u>Baseball and Softball Fields</u>	<u>Football Fields</u>	<u>Soccer Fields</u>	<u>Basketball Courts</u>	<u>Tennis Courts</u>	<u>Volleyball Courts</u>	<u>Swimming Areas</u>
1994	1 (0)	1 (1)	1 (0)	1 (1)	1 (1)	1 (1)	0 (0)
2000	1 (0)	1 (1)	1 (0)	1 (1)	1 (1)	1 (1)	0 (0)
2010	2 (1)	1 (1)	2 (1)	1 (1)	2 (2)	1 (1)	1 (1)
2020	2 (1)	2 (2)	2 (1)	2 (2)	2 (2)	1 (1)	1 (1)

[Deficit, based on existing 1994 facilities, is indicated by (1)]

For example, in 1994 there is no deficit for baseball and softball fields, a deficit of one football field, no deficit for soccer fields, a deficit of one basketball court, a deficit of one tennis court, a deficit of one volleyball court, and no deficit in swimming areas.

As noted above, the Municipal park provides some opportunities for active and passive recreation programs in the outdoors. There is a lack of indoor recreation facilities and direct recreation programming, and thus a shortfall in the provision of year-round recreation programs for senior citizens, adults, youth, and any citizen interested in fitness and wellness activities. The lack of indoor recreation facilities also severely restricts the ability to teach recreational skills to the citizens in the service area. Programs for the handicapped and those with other special needs are non-existent.

The total population and population density of the Township have not justified a Township sponsored recreation program; however, the Township will have to keep in mind the recreational needs of its residents, monitor the need for future Township action and encourage Township residents to utilize facilities and programs provided by others.

Recreational programs in which Township residents might participate (such as athletics, arts and crafts, nature activities and music, dance and drama), except for Scout programs in the Township and the senior citizens group in Parkesburg, must be found at distant locations outside of the Township because of the lack of nearby facilities and programming agencies within and nearby the Township. Consideration should be given to providing for community recreation which would include active and passive recreational activities and programs in the future, for all Township residents, when Township financial resources, population and density make it feasible.

The current lack of recreational programs in the Township extends to all age groups, including children and youth, adults, senior citizens and handicapped individuals. Children and youth are best served, given the Scouting program and the forthcoming Little League use of the ballfield at the Township Park. At the present time direct programming involvement by the Township could be avoided or minimized by formal and informal cooperation and coordination with other public agencies and with private and quasi-private agencies. A survey of Township residents would assist in determining the priority for providing future Township programs and guiding Township efforts in cooperating with other agencies.

When planning for recreational programs, the population could be placed into three basic groups, school age (for children/youth, the 5-17 age group), the work force (adults, 18-64 age group) and retired (senior citizens, the 65 and older group). In 1990, the school age population in the Township was 24.9% of the total population (compared to 17.5% for the County). 58.5% of the Township population was 18-64 (compared to 64.1% for the County). 8.7% of the Township population was 65 and older (compared to 10.9% for the County).

The Township does not have well defined neighborhoods at this time because it is still generally rural in nature and there are no real population concentrations in the Township. Needs have been evaluated on a Township-wide basis.

Table V-2 in this report indicates age distribution within the Township in 1980 and 1990. From 1980 to 1990, the greatest percentage increases occurred in the 65 to 74 age group (70.1%), 45 to 54 age group (39.5%), 25 to 44 age group (36.2%), 75 to 84 age group (35.1%), 5 to 17 age group (24.4%), and 55 to 59 age group (23.2%). The Township population as a whole grew by 25.0%. The largest absolute increases occurred in the 25 to 44 age group (192), 5 to 17 age group (105), 45 to 54 age group (62), and 65 to 74 age group (54). The median age increased from 27.7 to 32.0. The percentage under 18 years old decreased from 34.4% to 32.8%. The percentage 65 years and older increased from 7.1% to 8.7%.

In comparison, in Chester County as a whole the median age increased from 30.5 to 33.8; the percentage under 18 decreased from 28.5% to 25.0%; and the percentage 65 years and older increased from 9.0% to 10.9%.

Gender differences by broad age groups are not large. In 1990 in the Township there were 370 males 0-17 and 339 females; in 18-64, there were 643 males and 621 females; in 65 and older, there were 91 males and 96 females.

Based upon these trends, the Township will have to monitor needs for all three age groups, children/youth, adult, and senior citizen. The only organized program in which the Township participates is the Girl Scouts. The facilities at the Township Park serve children/youth (baseball field/soccer field, playground equipment, and skating area) to the greatest extent, and to a lesser extent adults (picnic area, skating area to a limited extent, and baseball/soccer field to a limited extent) and senior citizens (picnic area). The major short-term priorities of the Township will be to provide facilities which could be used by adults and senior citizens and to acquire additional land at the Township Parks which could be used for facilities and programs for all age groups in the future.

MUNICIPAL BUILDING

The Township Municipal Building is located along Moscow Road not far from Route 30. The building contains a meeting room, Township offices, an office for the police force, and storage area for Township equipment. The Township has equipment for road maintenance and snow removal and maintenance of the Township Park.

POLICE FORCE

West Sadsbury Township and Atglen Borough have formed a joint police force to serve the needs of both communities. The Township makes space available in the Township building for the police office and pays a monthly fee for the police service.

FIRE PROTECTION

The Township is served by the Parkesburg Fire Company and the Atglen Volunteer Fire Company. There is no fire company located within the Township boundaries. Ambulance service is provided by the Parkesburg Rescue Unit, headquartered at the Parkesburg Fire Company.

PUBLIC EDUCATION FACILITIES

The Township is within the Octorara School District, which is comprised of West Fallowfield Township, Atglen Borough, Highland Township, Londonderry Township, and West Sadsbury Township in Chester County and Sadsbury Township and Christiana Borough in Lancaster County. There are no school facilities located within West Sadsbury Township. The Octorara high school and Octorara intermediate school are located in West Fallowfield Township. The Octorara elementary school is located in Highland Township.

The elementary and intermediate schools are at capacity level, however the high school can accommodate increased enrollment. The student population has been increasing, and this pattern is expected to continue. The school district has no current plans to expand existing facilities, with the exception of adding more mobile classrooms to the elementary school if needed.

MAIL SERVICE

There is no post office within the Township. The majority of the Township is served by the post offices in Parkesburg and Atglen. The northern tip of the Township is served from Lancaster County.

HEALTH CARE FACILITIES

There are no hospitals or health care centers located within the Township. Health care facilities within the region include the Southern Chester County Medical Center located in Jennersville in Penn Township and the Brandywine Hospital and Trauma Center in Caln Township. The Chester County Hospital is located in West Goshen Township. Additional facilities are located in the Lancaster area.

SOLID WASTE MANAGEMENT

Solid waste in the Township is collected by commercial haulers which are contracted by Township residents. The waste is hauled to the Lanchester Landfill in Honey Brook. The Township does not operate a recycling program. Pursuant to Chester County's Flow Control Ordinance Regulating Municipal Waste and the County's Act 101 Plan, refuse collectors within the Township are required to dispose of collected refuse at the Lanchester Landfill.

LIBRARY SERVICES

There are no library services within the Township. The nearest libraries are the Parkesburg Free Library and the Atglen Reading Center.

STORMWATER MANAGEMENT

Stormwater management and erosion and sedimentation control for new development is regulated by the Township's Subdivision and Land Development Ordinance. As development occurs in the Township, the Township should be assured that developers adequately address stormwater management and erosion and sediment control by reviewing subdivision and land development plans and monitoring construction activities.

If runoff is not adequately managed, in addition to water problems on roads and individual lots, the quality of surface waters can be adversely affected from erosion and sedimentation and runoff of pollutants.

WATER SUPPLY

The Township is not currently served by public water. Public water is available in Atglen Borough and Parkesburg Borough.

Atglen Borough operates a water system. The wells and reservoirs are located in West Sadsbury Township. Mains to the Borough follow Church and Swan Roads.

Service to Parkesburg is provided by the City of Coatesville Authority. An Authority water main parallels the railroad tracks in the southern portion of West Sadsbury Township.

In Chapter V, calculations of land area necessary to accommodate increased population in the Township were developed. The greater the density of development, the less land consumed for development. To support increased densities of development, water supply and sewage disposal must be provided by a method other than individual systems on each lot. Logical sources of public water supply would be the Atglen and Parkesburg (Coatesville Authority) systems.

The watershed for the Atglen water supplies is located in the Township, and the Township should encourage land use policies which will not adversely affect the watershed area. Any development within the vicinity should be closely monitored so that runoff, sedimentation and erosion will not affect the watershed.

The high yield aquifer in the southern portion of the Township has been previously discussed. As a potential source of water supply and an area particularly vulnerable to pollution, the aquifer should be protected as development occurs in the future.

SANITARY SEWAGE FACILITIES

West Sadsbury Township does not own or operate a sewage treatment plant. Treatment plants for the Boroughs of Atglen, Parkesburg and Christiana are located either within or nearby the Township. The three treatment facilities presently do not service any part of the Township, however they represent alternatives for West Sadsbury Township to consider when investigating the potential for serving portions of the Township with public sewer.

As noted previously, when development does occur, it can occur at greater densities and consume less land if public sewer and water facilities are available. In addition, the use of on-site sewage disposal systems can pollute ground and surface water. Of particular concern is the high yield aquifer in the southern portion of the Township.

The Township is currently updating its Act 537 Plan. As part of the Act 537 Plan, the Township will identify the alternative methods of addressing sewage disposal for identified areas within the Township.

The area of the Township which is likely to be given first consideration in identifying potential methods for public sewage disposal is the area along Lower Valley Road between Parkesburg and Atglen Boroughs. This area is of particular concern because of the presence of the high yield aquifer, the likelihood of additional industrial and commercial development, and the potential for pollution of the aquifer.

The second area to receive particular attention will be the Route 30 area. This area is likely to experience increased development pressure with the completion of the Exton Bypass, and methods for serving this area with public sewage disposal should be investigated.

PLANNING IMPLICATIONS OF COMMUNITY FACILITIES AND SERVICES

- The Township should investigate the potential for serving future development within the Township with public water supply.
- The Township should complete the Act 537 Plan to identify methods for handling sanitary sewage disposal in the future. The potential for serving future development within the Township with public sewage disposal should be investigated. Particular attention should be given to the area along Lower Valley Road between Parkesburg and Atglen and the Route 30 area.
- The Township should keep in mind the recreational needs of its residents and monitor the need for future Township action.

- The proposals for recreation facilities outlined in the Township's Open Space, Recreation, and Environmental Resources Plan and the Community Facilities Plan should be programmed as Township resources permit.
- It appears that emergency services, including police, fire and ambulance service are adequate for the Township. However, these services should be reviewed periodically to determine their continued adequacy.
- The Township should continue to monitor existing enrollment and proposed development and potential additional enrollment with the school district to identify impacts on school facilities.

CHAPTER VII

CIRCULATION

This chapter addresses the functional classification of Township roads and areas of particular concern which will be addressed in Chapter XI, The Circulation Plan.

Additional information on the circulation system within the Township can be found in the Highway Needs Study prepared by the Chester County Planning Commission, which is the source of most of the data included within this chapter.

FUNCTIONAL CLASSIFICATION

The roads within the Township are classified according to the function they serve and are shown on the Circulation Conditions Map. The classifications are as follows:

Principal Arterials have as their primary function the movement of large volumes of traffic at relatively high rates of speed. They provide high levels of services and facilitate traffic over long distances on an inter-county or interstate basis. Typical characteristics of principal arterials are:

- Serves heavy volumes of traffic (10,000 - 40,000 ADT);
- Provides high degree of vehicular mobility;
- Serves long distance travel;
- Links urban centers;
- Provides good truck or bus mobility;
- Provides some control of access;
- Provides more than two travel lanes.

US Route 30 crosses the Township from east to west and connects York, Lancaster and Philadelphia. It traverses Pennsylvania and enters New Jersey and Ohio. It is the major east west route through the Township and the Township's only retail commercial corridor. As additional development occurs along Route 30, a concern of the Township will be to preserve the capacity of Route 30.

WEST CALN
TOWNSHIP

- LEGEND**
- PRINCIPAL ARTERIAL
 - MINOR ARTERIAL
 - MAJOR COLLECTOR
 - MINOR COLLECTOR
 - LOCAL ACCESS ROAD
 - ALIGNMENT CONCERNS
 - ACCESS CONCERNS
 - SCENIC ROAD
 - ACCESS MANAGEMENT & CORRIDOR CONCERNS

SADSBUURY
TOWNSHIP

BLACK
HORSE

LANCASTER COUNTY

PARKESBURG
BOROUGH

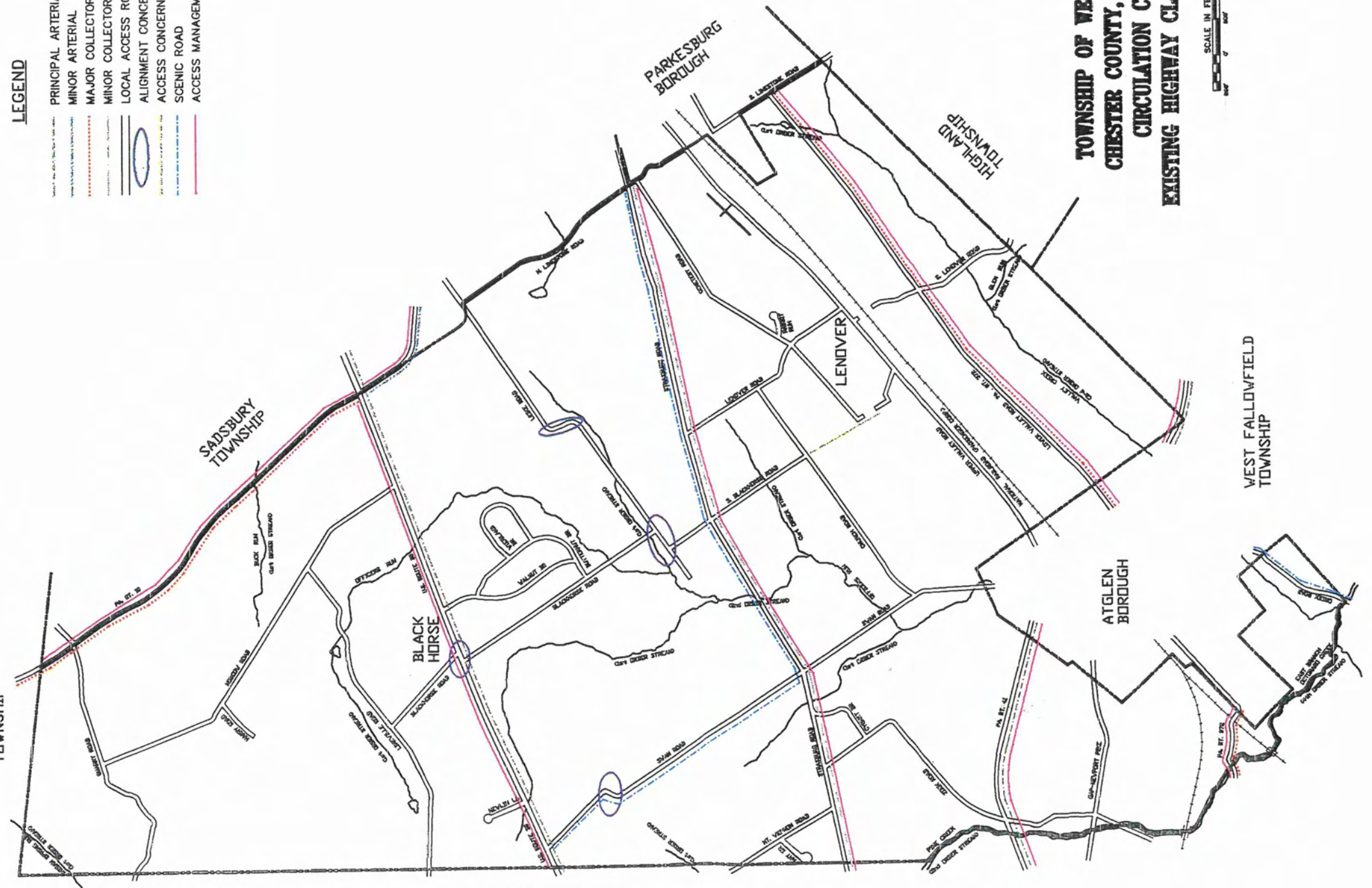
LENOVER

HIGHLAND
TOWNSHIP

ATGLEN
BOROUGH

WEST FALLOWFIELD
TOWNSHIP

**TOWNSHIP OF WEST SADSBUURY
CHESTER COUNTY, PENNSYLVANIA
CIRCULATION CONDITIONS
EXISTING HIGHWAY CLASSIFICATION MAP**



Route 41 is also a principal arterial. It traverses the southwest corner of the Township in a southeast to northwest direction. It connects Route 30 west of the Township to Wilmington, passing through Atglen.

Minor Arterials interconnect with and augment the principal arterial system. These roads provide services to trips of moderate length and have controlled access points. Minor arterials provide greater access to adjacent land than principal arterials. Typical conditions of minor arterials are:

- Serves high volumes of traffic (5,000 - 15,000 ADT);
- Provides high degree of mobility;
- Serves inter-metropolitan traffic;
- Links boroughs and villages;
- Provides some control of access.

Route 10 south of Route 30 is classified as a minor arterial. It forms a small portion of the eastern Township boundary south of Route 30. It runs through Parkesburg, connecting to Routes 372, 41, and 1, to Oxford.

Major Collectors connect municipalities and incorporated centers. These roads are the major contributors to arterial traffic and carry fairly heavy traffic volumes at moderate rates of speed. Typical characteristics of major collectors include:

- Serves moderate volumes of traffic (3,000 - 8,000 ADT);
- Provides a mix of access and mobility;
- Collects traffic from local streets for distribution to arterials;
- Links neighborhoods;
- Serves some local oriented traffic.

Route 10 north of Route 30 and Route 372 are considered major collectors.

Route 10 north of Route 30 connects to Honeybrook, the Pennsylvania Turnpike Interchange and Interstate 176 in Morgantown and Reading. Pennsylvania Route 372 extends from Coatesville to the Susquehanna River, passing through Parkesburg and Atglen.

Minor Collectors facilitate relatively low volumes of traffic at lower speeds. They gather traffic from local roads and direct it to the arterial and major collector road networks. Minor collectors often provide traffic circulation between and within residential neighborhoods. Typical characteristics of minor collectors are:

- Serves lower volumes of traffic (1,000 - 3,000 ADT);
- Provides a mix of access and mobility with a priority on access;
- Collects traffic from local streets for distribution to arterials;
- Serves as major road through identifiable neighborhoods;
- Serves mostly local oriented traffic.

Strasburg Road within the Township is considered a minor collector. It is the third important east west route through the Township, along with Route 30 and Route 372. West of Parkesburg, Strasburg Road is classified as a major collector. Strasburg Road connects Route 322 south of Dowingtown to Parkesburg and Gap.

Local Roads provide the greatest access to adjacent land. Local roads provide for short distance, low speed travel and make up the majority of the roads within the Township. The number of access points is greatest on local roads. Typical characteristics of local roads are:

- Serves low volumes of traffic (less than 1,000 ADT);
- Provides high level of access to adjacent properties;
- Serves as an access point for individual parcels;
- Provides short distance travel;
- Does not serve through trips.

The remaining roads in the Township are considered local roads.

Routes 30, 10, 41 and 372 are on PennDOT's Existing Priority Commercial Network. This network identifies high volume truck routes which are important to maintain or improve.

The Chester County Planning Commission has recommended that Strasburg Road from Lancaster County to Parkesburg be added to the Agricultural Areas Network. This network identifies routes which exist in the movement of agricultural products.

TRAFFIC GENERATION

West Sadsbury Township is generally rural in nature, however the Chester County Highway Needs Study indicates that there is a medium potential for an increase in trip generation in the Township. Currently the only medium volume trip generators are the industrial and commercial uses along 372 just west of Parkesburg. Low volume trip generators are the subdivision just south of Route 30 east of Blackhorse Road and the subdivision south of Strasburg Road east of Zook Road. There are no high volume trip generators within the Township.

In the vicinity of the Township, there are generally scattered low volume trip generators, except for high volume trip generators at the heart of Atglen and Parkesburg Boroughs. Atglen is at the western end of a concentration of trip generators along Route 30 - Route 372 following the Chester Valley.

Development has generally moved westward in the County, along major traffic arteries, particularly Route 30. This trend can be expected to continue, and perhaps accelerate, when the Exton Bypass is completed. The Route 30 Bypass terminates just east of the Township in Sadsbury Township and just west of West Whiteland Township in East Caln Township. The Exton bypass will be located south of Exton and connect to Routes 100 and 202, making West Sadsbury Township more accessible to places of employment and shopping.

A major concern of the Township will be to accommodate increased development, while maintaining the efficiency of traffic corridors, preserving agricultural areas and providing an open space system. Of particular concern will be the Route 30 corridor and Strasburg Road, (which is a scenic road in an agricultural area and which can also provide an east west alternative to Route 30).

Work trips in the Octoraro region of Chester County (Atglen, Highland, Parkesburg, Sadsbury, West Fallowfield, West Sadsbury) are mainly to Chester County, secondarily to Lancaster County. The Octoraro region is one of three of eleven regions in the county where the highest concentrations of trips is external, in this case overwhelmingly to the Coatesville region. There are no intense work trip patterns within the Township at this time.

RAIL LINE

The Conrail tracks in the southern portion of the Township provide both freight and passenger service. Passenger service is available from Philadelphia to Harrisburg, with stops at Coatesville, Parkesburg and Lancaster.

AIRPORTS

The nearest airport to West Sadsbury Township is the Chester County Airport in Valley Township, between Route 372 and Business Route 30, between Coatesville and Parkesburg.

HIGHWAY NEEDS

Corridor Problems. Route 30 and the northern portion of Route 10 have been identified as corridors that must be observed, evaluated, protected and improved. Corridor problems occur where there are concentrations of capacity and safety problems on roads which extend through a community or between communities.

Access Management Problems. These have been identified for Route 30 throughout the Township, Route 41 throughout the Township, and Route 10 south of Route 30. Access problems are situations where conflicts between mobility and access are, or will be, intense and result in congestion and safety problems. Access problems typically occur on roads serving high volume, high speed traffic, and corridors of intense, trip generating land uses.

Capacity Problems. Route 10 in the northern tip of the Township and Route 30-Route 10 intersection were listed as having capacity problems, resulting in minor peak hour congestion. Capacity problems occur at individual intersections, groups of intersections or along narrow, poorly designed road segments where a road was not designed to accommodate current traffic volumes.

Safety Problems. Are indicated at the Route 30-Route 10 intersection. Safety problems are high hazard locations which are documented by reported accident data.

Maintenance Problems. Are indicated on Route 10 for the length of the Township, Strasburg Road for its length in the Township and Route 372 for its length in the Township. The Township also considers Swan Road having maintenance problems because of drifting snow. Maintenance problems involve roads experiencing severe surface, shoulder or drainage problems for segments over one half mile in length. Problems include drifting of snow, severe roadway alignment of Route 10 at the northern Township boundary and the narrow cartway of Strasburg Road. Route 372 experiences truck traffic but is not correspondingly wide and maintained.

REALIGNMENT CONCERNS

Blackhorse Road is offset at its intersections with Route 30. It is desirable to have the intersections with Route 30 aligned; however, existing land uses at the intersection render such alignment not feasible at this time.

There are two sharp bends in Swan Road south of Route 30. It would be desirable to realign the road to eliminate the two sharp bends by constructing a softer curve.

Blackhorse Road is not aligned at its intersection with Leike Road. A car traveling on Blackhorse Road would have to first turn onto Leike Road before resuming on Blackhorse Road. It would be desirable to align Blackhorse Road at this intersection.

Two sharp bends are found on Leike Road between Blackhorse Road and North Limestone Road. It would be desirable to eliminate the two sharp bends by constructing a softer curve.

South Blackhorse currently terminates at Church Road. Hurley Road in Lenover, north of Upper Valley Road, currently dead ends and does not connect to Cemetery Road. It would be desirable to complete Hurley Road to Cemetery Road and to then extend South Blackhorse Road south to connect to Cemetery Road and Hurley Road to facilitate traffic circulation in the Lenover area.

SCENIC ROAD CORRIDORS

The Township has identified three scenic roads within the Township, Creek Road in the southwest corner of the Township; Swan Road from Route 30 to Strasburg Road; and Strasburg Road from Swan Road to the eastern Township boundary. The areas along the scenic roads should be preserved from incompatible encroachments to protect their scenic nature.

The Creek Road area is a beautiful landscape of pastures, trees and agricultural land. The road leads to the Octoraro Creek, which is a Pennsylvania scenic river. Water resources and potential archeological sites have been identified in the area.

The Swan Road area is a scenic agricultural area and contains two historic sites. A scenic vista is located at Route 30. Prime agricultural land is located along the road.

The Strasburg Road area is also a scenic agricultural area containing prime agricultural land. A scenic vista opens up at the eastern end of the road.

PLANNING IMPLICATIONS OF CIRCULATION

- The primary concern of the Township will be to maintain the capacity of the main road corridors within the Township to move traffic efficiently as the Township experiences increased development. Of particular concern will be Route 30, Route 10, Route 41, Route 372 and Strasburg Road.
- Additional needed road improvements should be programmed in order to improve the circulation system within the Township, such as improving areas of poor alignment and making logical road connections.
- The Township should monitor proposed development in the region to determine potential impacts in the Township and methods of addressing increased traffic volumes that are likely to result.

- New development in the Township should be planned so as not to have adverse impacts on the circulation system of the Township. Township regulations should contain design and road improvement standards to accomplish this.
- The scenic road corridors within the Township should have their character retained through design standards in Township Ordinances.

CHAPTER VIII

EXISTING LAND USE

Existing land use patterns have a great influence on the Future Land Use Plan, presented in Chapter X, but also affect circulation within the Township and demand for community facilities and services. The relationships of the Future Land Use, Circulation, and Community Facilities and Services Plans are reviewed in Chapter XIII.

The Existing Land Use Map shows existing land use determined through a field survey in 1992.

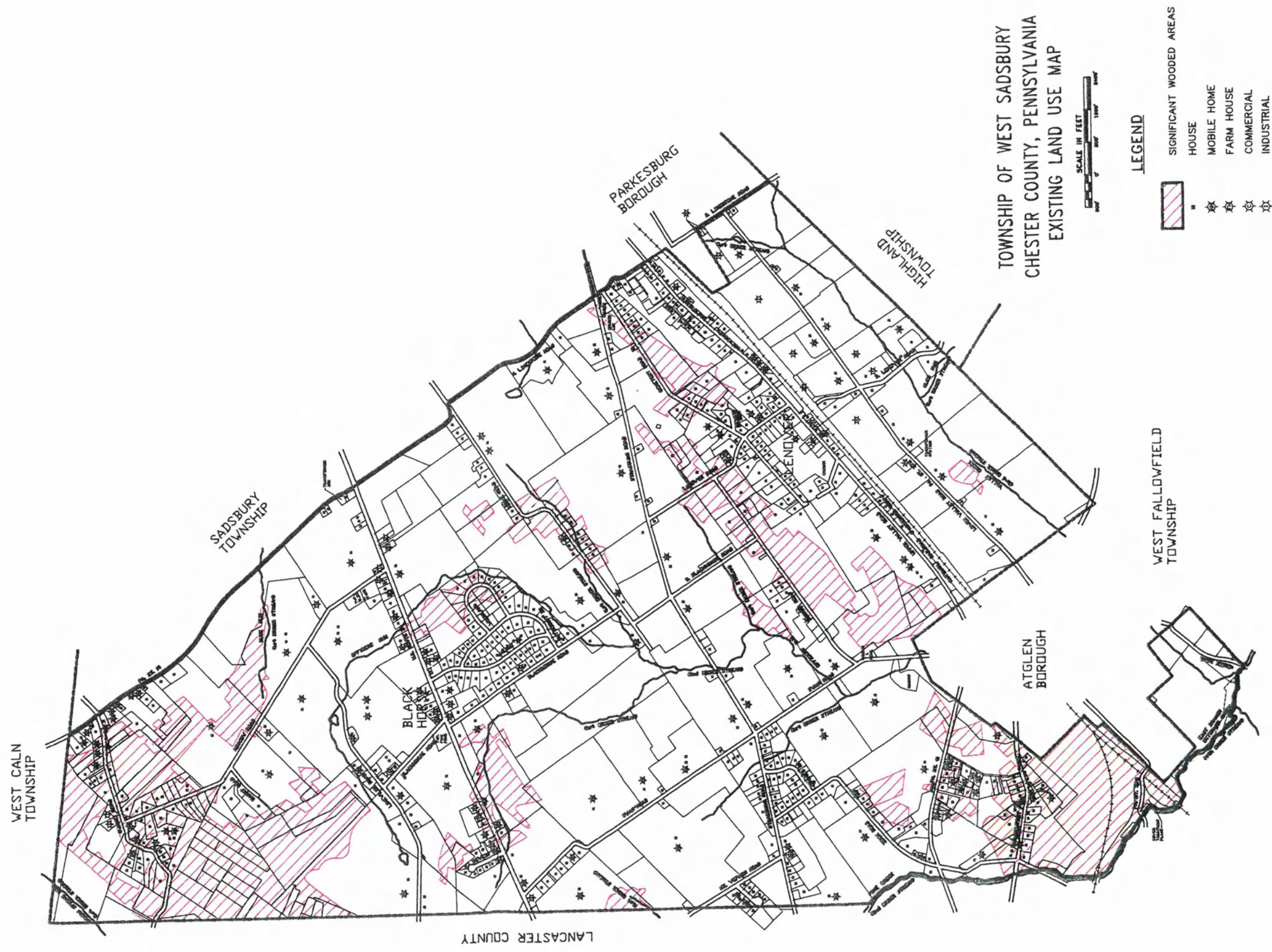
The categories that have been mapped include Significant Wooded Areas, House (single family detached dwelling), Mobile Home, Farmhouse, Commercial and Industrial. Public and Quasi-public uses have been labelled on the plan.

Significant Wooded Areas







Significant Wooded Areas are large expanses of existing woodlands. There are three concentrations of significant woodland, one in the northern tip of the Township in the vicinity of Quarry and Moscow Roads, one between North Limestone and Swan Roads in the vicinity of Church Road, and one in the southwestern portion of the Township, south of Gap-Newport Pike. Other significant wooded areas are scattered through the Township.

Single Family Dwellings

For the most part, single family homes have been constructed along existing Township roads. There has been little subdivision activity involving new road construction within the Township. The largest subdivision was constructed south of Route 30 and east of Blackhorse Road. Subdivisions with one road were constructed south of Strasburg Road east of Swan Road, along Route 30 in the western portion of the Township, off of Mount Vernon Road in the western portion of the Township and off of Cemetery Road near Lenover.



TOWNSHIP OF WEST SADBURY
 CHESTER COUNTY, PENNSYLVANIA
 EXISTING LAND USE MAP

- LEGEND**
-  SIGNIFICANT WOODED AREAS
 -  HOUSE
 -  MOBILE HOME
 -  FARM HOUSE
 -  COMMERCIAL
 -  INDUSTRIAL

The greatest concentrations of homes in the Township are the subdivision near Route 30 and Blackhorse Road, the Strasburg Road area west of Swan Road and the area from Parkesburg Borough to Lenover.

The pattern of homes constructed along Township roads can conflict with the function of those roads as carriers of traffic. This is particularly the case with arterial and collector roads. Permissible development patterns along roads should be related to the functional classification of roads which was discussed in Chapter VII.

Mobile Homes

Mobile homes are found scattered throughout the Township. The only concentrations occur along Route 41 northwest of Atglen Borough and along Quarry Road near Route 10.

Farmhouses

Agriculture is the predominant land use in the Township and farmhouses can be found throughout the Township, except in the northern tip of the Township, the southwest corner of the Township and the wooded area north of Lenover.

Commercial

Many of the strictly commercial uses (those not in combination with a residence) are found along Route 30 throughout its length in the Township. A number of commercial uses can also be found along Lower Valley Road. Otherwise, commercial uses in the Township are scattered along Township roads.

Industrial

There is no concentration of industrial uses in the Township at this time. Industrial uses can be found along Lower Valley Road west of Parkesburg Borough, along Route 30 and along Quarry Road near Moscow Road.

PLANNING IMPLICATIONS OF EXISTING LAND USE

- The character of the Township is, and has always been, agricultural. It is not likely that this will change in the near future.
- Over the years since 1940 the statistical characteristics of the Township have fit the definition of rural with the respect to settlement patterns. Presently there are 0.1 housing units per acre of ground and 201.9 persons per square mile.
- A significant portion of the Township is agricultural lands, streams, wetlands, steep slopes and wooded lands. Over the years there has been a general awareness of the value of protection of these and other natural resources. The Township has instituted some controls and the Zoning Ordinance and Subdivision Ordinance do address these matters. This plan will form the basis to develop meaningful and implementable methods of preserving the Township's resources in creating areas of open space and recreational opportunities while managing growth within the Township.
- Throughout the Township there is generally a good balance of existing land uses to serve the residential, commercial, social and other needs of the community. Most of the commercial enterprises can be found along Route 30. Several new residential developments have been built over the past several years, however the Township has not experienced many large subdivisions. Much residential development has occurred along existing Township roads.
- Development potential throughout the Township is significant. There is an abundance of open ground available which would accommodate a wide array of types of development.
- Land use and the circulation system are closely linked. It is necessary to maintain a road system which can accommodate generated traffic volume. In turn, development which occurs must be accomplished in patterns which do not adversely affect the circulation system.

CHAPTER IX

COMMUNITY DEVELOPMENT GOALS AND OBJECTIVES

This section of the Comprehensive Plan presents the goals and objectives of the Township for its future. Goals are general statements indicating the desired direction for the Township. Objectives are more specific policy guidelines for the Township to follow. Goals are achieved through the accomplishment of the stated objectives. The specific proposals for Future Land Use, Circulation and Community Facilities and Services, to achieve these goals and objectives, follow in Chapters X, XI, and XII respectively.

In developing the following goals and objectives, the Comprehensive Plan Task Force first reviewed the goals and objectives of the Township's previous Comprehensive Plan. Those goals were modified and additional goals and objectives were developed based upon the current concerns of the Township.

OVERALL GOAL OF THE COMPREHENSIVE PLAN

Goal

- Maintain the rural-agricultural character of West Sadsbury Township which makes it such a pleasant community in which to live.

REGIONAL SETTING

Goal

- Maintain and further develop cooperation between West Sadsbury Township and adjacent municipalities and regional planning organizations.

Objectives

- Involve the Township in regional planning activities and projects of regional influence.
- Monitor regional activities which influence West Sadsbury Township.
- Work with neighboring municipalities to encourage the development of compatible land uses.
- Work with neighboring municipalities to address issues of mutual concern.
- Cooperate with county and state agencies to meet community goals and objectives.

NATURAL RESOURCES

Goal

- Protect the natural resources of the Township

Objectives

- Encourage the protection of water resources and thus the quantity and quality of surface and groundwater. Of particular concern will be the Valley Creek, Officer's Run and its tributaries, Buck Run, Pine Creek and Octoraro Creek and the wetlands, hydric soils, linear features and floodplains along the watercourses. Protecting these areas will provide a buffer along watercourses and protection of groundwater discharge/recharge areas while also providing a system of open space.
- Encourage the protection of the high yield aquifer (Conestoga formation) in the southern portion of the Township, which, in addition to being a source of water supply, is particularly vulnerable to pollution of the groundwater.

- Encourage the protection of prime agricultural soils throughout the Township with particular attention to the prime agricultural soils in the vicinity of Swan, Strasburg and Creek Roads. These are roads which have been identified as scenic roads within the Township.
- Encourage the protection of the significant wooded areas located in the northwest and southwest corners of the Township and those located on steep slopes at other scattered locations within the Township.
- Encourage the protection of the unwooded steep slopes within the Township.
- Encourage the protection of the Borough of Atglen Watershed.

HISTORIC AND SCENIC RESOURCES

Goal

- Continue to recognize the importance of Township history and Township historic and scenic resources.

Objectives

- Encourage the protection of historic resources within the Township, including the Chalfont Auto Factory at Lenover, Zion Hill Cemetery south of Gap-Newport Pike, the Swan Hotel at the intersection of Swan and Strasburg Roads, the Swan School along Swan Road, the cemetery at the eastern Township boundary between Strasburg Road and Cemetery Road and the Moscow School near the intersection of Moscow Road and Route 30.
- Encourage the protection of the Lenover area, located on the northern and southern sides of Upper Valley Road to the east and west of the Chalfont Auto Factory, which contains several older buildings in an area which has not been encroached upon by incompatible land uses. This area should be preserved from encroachments which are not appropriate to existing buildings in the area.

- Encourage the protection of corridors along the scenic roads within the Township, including Swan Road, Strasburg Road and Creek Road. The scenic vistas from the Township building and park site looking to the west, north and east; from the vicinity of the intersection of Route 30 and Swan Road looking to the south and southeast; and from the church at the eastern Township line between Strasburg and Cemetery Road, looking to the northwest and northeast.
- Encourage the protection of the Creek Road area which serves as an approach to the Pennsylvania Scenic River area along the Octoraro Creek, and is a particularly attractive area in itself. It would be desirable to preserve that entire area.
- By encouraging the preservation and protection of the areas outlined above, afford protection to areas of high probability for the presence of prehistoric archeological sites identified by the Pennsylvania Historic Museum Commission.

OPEN SPACE

Goal

- Protect the open spaces within the Township

Objectives

- Encourage the creation on an open space network within the Township encompassing the stream corridors.
- Encourage both visual and physical access to the open space system.
- In Land Use Policies, realize that growth management and open space policies should be complementary so that those areas the Township wishes to preserve as open space will not be designated as growth areas nor planned for infrastructure improvements which would encourage development in areas which should be used for open space.

- Encourage the development of an open space system linking areas within the Township by working with property owners to evaluate developing linear stream parks within the stream corridors within the Township.

FUTURE LAND USE

Goals

- Provide for future development that is compatible with the existing character of the community and which will be consistent with the goals of preserving the natural, scenic and historic resources of the Township.
- Promote adequate, safe and sound housing for present and future Township residents.

Objectives

- Given the large expanse of prime agricultural land and the extensive agricultural activities now conducted within the Township, which are a major component of the economy of the Township, work with private property owners to encourage the continuation of agricultural activities in those areas of the Township where agriculture is currently practiced.
- Encourage private property owners to preserve stream corridors within the Township in order to preserve the water resources within the Township.
- Encourage private property owners to preserve major woodlands within the Township.
- Encourage private property owners to preserve historic resources within the Township.
- Encourage private property owners to preserve the scenic viewsheds and scenic road corridors within the Township.

- Recognize land as a valuable resource and allocate its uses judiciously while providing for diverse land uses.
- Recognizing that some development will occur in the Township, instill order in the growth and development of the Township. Development will occur on a small scale on an on-going basis after adoption of this Plan. Larger-scale development will not occur until public sewer and water facilities are available in the Township. While it is possible that large-scale development could occur in the short-term (2 to 5 years), it is expected to happen in the long term (5 to 10 years).
- Recognize that when development occurs, the ecological balance must be preserved and the natural environment protected.
- Minimize the conflict between various types of land use by providing for buffer areas and insuring adequate circulation.
- Encourage development that incorporated the use of innovative techniques in order to minimize land consumption and preserve the environmental resources within the Township.
- Provide opportunity for a variety of attractive residential housing types within the natural and service constraints of the Township.
- Permit the development of local business convenient to residents at appropriate locations designated by the Township, primarily along Route 30. This development will occur on an on-going basis after adoption of this Plan.
- Permit sound economic development to provide for a stable tax base for the future.
- Utilize performance and design standards to eliminate conflicts between non residential and residential uses.

- Provide for the maintenance of the character of existing residential areas within the Township through appropriate land use controls.
- Allow for a variety of housing densities in appropriately designated areas.

ECONOMIC DEVELOPMENT

Goal

- Provide opportunities for suitable and compatible commercial, business and industrial activities within the scale of existing land use patterns, support services, transportation networks and environmental concerns of the Township.

Objectives

- Provide for future commercial and office development in the vicinity of the intersection of Route 30 and Route 10. Such development will occur after completion of the Route 30 By-pass and availability of public sewage disposal in Parkesburg Borough and extension of the sewer system to this area. While it could be a short-term (2 to 5 year) occurrence, it is expected to occur in the long term (5 to 10 years).
- Provide for industrial development within the area of Route 372 in the southern portion of the Township. Such development will occur after Parkesburg Borough is connected to the Coatesville sewer system, which is anticipated to occur 18 to 24 months after adoption of this Plan. The development will be both short-term and long term.
- Promote local employment opportunities.

CIRCULATION

Goal

- Provide for an efficient circulation system within the limits of the existing transportation system within the Township.

Objectives

- Promote coordinated access management programs
- Encourage integrated development providing for controlled and limited access to the transportation system.
- Preserve the scenic road corridors within the Township.
- Preserve the capacity of the existing roads within the Township as future development occurs.
- Plan for a system of local roads to provide safe, convenient internal circulation and access to primary routes of travel.
- Provide maintenance of the existing circulation system as warranted and identify concerns within the system.
- Monitor development impacts on roadway capacity to address concerns regarding projected increased traffic volumes and their effects on the Township.

Community Services and Facilities

Goal

- Provide for essential facilities and services necessary to meet the existing and future needs of the Township residents.

Objectives

- Periodically evaluate the demand for community services and facilities to indicate where improvements may be necessary.
- Coordinate future development with the availability of required utilities.
- Consider the provision for various public utilities, such as water and sewage disposal, in areas the Township determines as future growth areas, to ensure the quality and character of future development and the protection of the environment.
- Plan for community facilities efficiently and economically as the need arises.
- Provide for recreational facilities in accordance with the recommendations of the Community Facilities Plan and the Township's Open Space, Recreation and Environmental Resources Plan.
- Consider improving and protecting the character of development in the Township by investigating the adoption of Housing, Building and Fire Codes.
- Promote sound financial planning by adopting capital improvement programs.
- Develop a basis for regulatory measures controlling land use and development.
- Develop a plan which would be a resource for decision makers when considering development matters.

CHAPTER X FUTURE LAND USE PLAN

Introduction

The Future Land Use Plan establishes Township policy for guiding future land use within the Township. The Future Land Use Plan will serve as a guide on which to base regulatory controls, such as the Township Zoning Map and Zoning Ordinance and the provisions of the Township Subdivision and Land Development Ordinance. It will also be a guide for the Township in making decisions regarding land usage. Plans for circulation and community facilities will be related to the proposals for land use.
















The Future Land Use Plan is a general guideline for future use of land and does not in itself restrict the use of land. The Zoning Map establishes zoning district boundaries and the Zoning Ordinance indicates permitted land uses and the permitted density of development. In the land use categories established below, the general types of land uses permitted in each category will be indicated, as well as the general density range for land usage.

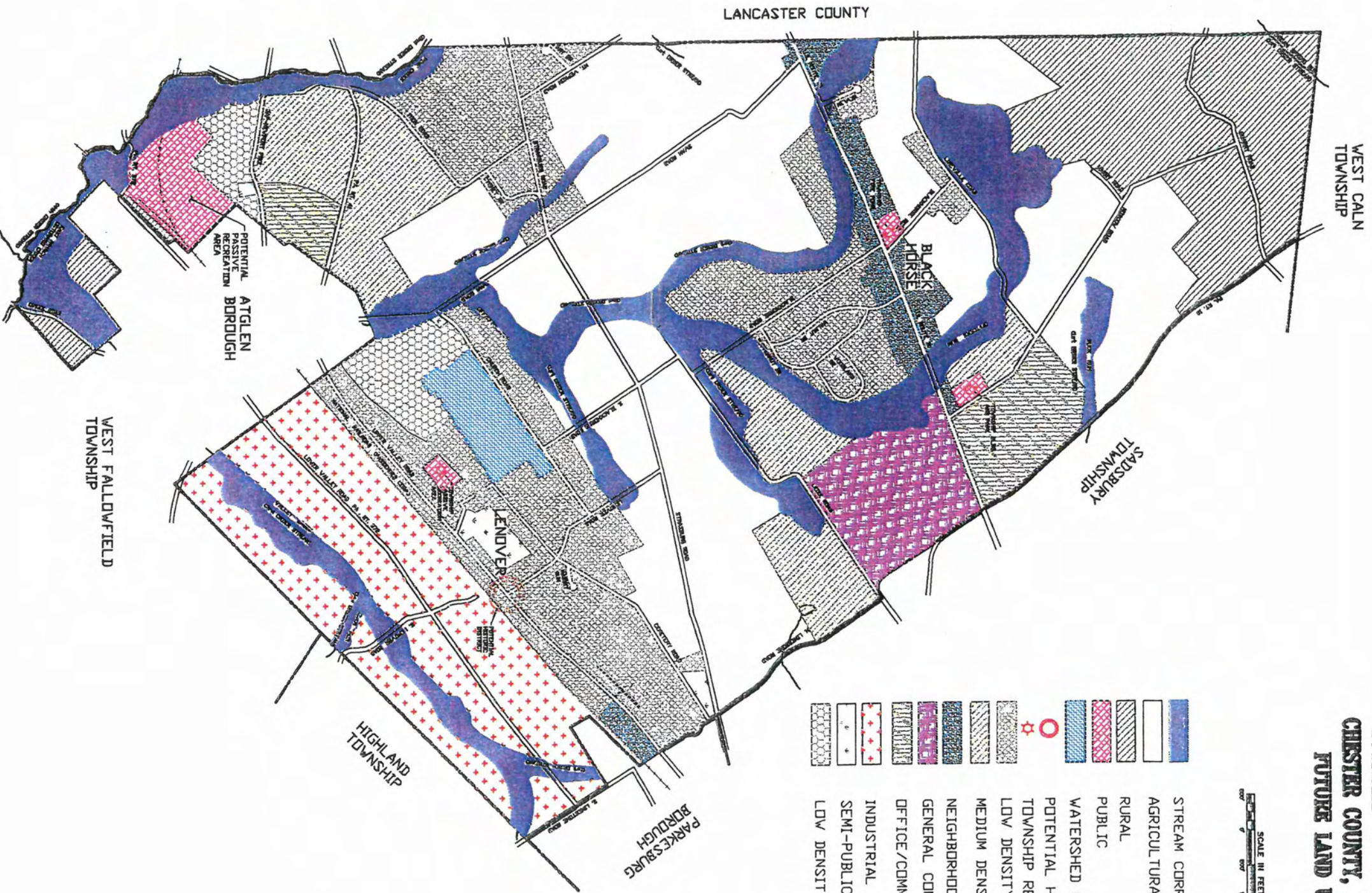
Relationship to Community Development Goals and Objectives

The Future Land Use Plan is intended to establish policies which will implement the goals and objectives found in Chapter IX, Community Development Goals and Objectives. Some of the goals indicated are to maintain the rural-agricultural character of the Township, protect the natural resources of the Township, such as water resources, prime agricultural soils and wooded areas; encourage the protection of the Borough of Atglen watershed; encourage the protection of corridors along the scenic roads within the Township, including Swan Road, Strasburg Road and Creek Road; encourage the creation of an open space network within the Township encompassing the stream corridors; realize that growth management and open space policies should be complementary so that those areas the Township wishes to preserve as open space will not be designated as growth areas; and provide opportunities for suitable and compatible commercial, business and industrial activities within the scale of existing land use patterns, support services, transportation networks and environmental concerns of the Township. Objectives include providing for future commercial and office development within the vicinity of the intersection of Route 30 and Route 10 and industrial development in the area of Route 372 within the southern portion of the Township.

**TOWNSHIP OF WEST SADSBURY
CHESTER COUNTY, PENNSYLVANIA
FUTURE LAND USE PLAN**



-  STREAM CORRIDORS
-  AGRICULTURAL
-  RURAL
-  PUBLIC
-  WATERSHED PROTECTION
-  POTENTIAL HISTORIC DISTRICT
-  TOWNSHIP RECREATION FACILITIES
-  LOW DENSITY RESIDENTIAL
-  MEDIUM DENSITY RESIDENTIAL
-  NEIGHBORHOOD COMMERCIAL
-  GENERAL COMMERCIAL
-  OFFICE/COMMERCIAL
-  INDUSTRIAL
-  SEMI-PUBLIC
-  LOW DENSITY CLUSTER



Relationship to Existing Land Use

Existing land use is also an important influence on the Future Land Use Plan. The character of the Township is, and has always been, agricultural. The Township is rural with respect to settlement patterns, with a density of 201.9 persons per square mile. A significant portion of the Township is agricultural lands, streams, wetlands, steep slopes and wooded lands. There has been a general awareness of the value of protection of these lands and other natural resources and this plan will form the basis to develop meaningful and implementable methods of preserving the Township's resources and creating areas of open space while managing growth within the Township.

Throughout the Township there is generally a good balance of existing land uses to serve the residential, commercial, social and other needs of the community. Most of the commercial enterprises are found along Route 30. Several new residential developments have been built over the past several years, but the Township has not experienced many large subdivisions. Much of the residential development has occurred along existing Township roads.

Because of the traffic generated by commercial and industrial uses, and the potential for impacts on residential uses, it is desirable to take into account existing land use patterns when developing future land use patterns. It is also desirable to locate the commercial and industrial uses near the major elements of the circulation system so vehicles servicing these areas would not have to use residential streets and sufficient road capacity would be available to accommodate the traffic.

Existing Zoning Policy

The Zoning Map of the Township in part reflects existing land use patterns and also influences future land use patterns. Most of the Township is zoned Residential, which provides for single family detached dwelling development on one acre minimum lots with on-lot sewage disposal and water supply, and a wide range of dwelling types at higher densities if off-site sewage disposal and water supply is available. Industrial zoning is found along Route 372 in the southern portion of the Township from Parkesburg Borough to Atglen Borough south of the railroad tracks. Neighborhood Commercial zoning is located south of Upper Valley Road just west of Parkesburg Borough and along the length of Route 30, except at the eastern portion of the Township. Commercial zoning is found between Route 30 and Leike Road in the eastern portion of the Township. Industrial/Commercial zoning has been established between Route 10 and Moscow Road north of Route 30 and between Route 41 and Gap-Newport Pike north of Atglen Borough.

The Residential zoning classification throughout much of the Township is in itself inconsistent with the preservation of the resources which the Township wishes to protect. Residential development could occur throughout the Township, without direction and concentration. Such a pattern of development is not the most efficient for providing infrastructure such as sanitary sewer and water systems.

Accommodation of Projected Populated Growth

The Chester County Planning Commission's population projections for the Township indicate a population increase of 1800 people by the year 2020. In Chapter V it was calculated that this would result in a projected household increase of 555 over the same period. Assuming an average lot size of 1 acre, the acreage necessary to accommodate this development would be 695. Assuming an average lot size of 10,000 square feet, the necessary acreage would be 166. In the past, development has occurred on lots of 1 acre or larger because of the unavailability of public sanitary sewer and water facilities. If these facilities did become available, an acreage of less than 695 would be necessary.

Time of Future Development

The future growth areas which will be developed first are the industrial area along Lower Valley Road and the residential/commercial/office areas in the vicinity of Routes 30 and 10. The Borough of Parkesburg will be connected to the Coatesville sewer system in approximately 18 to 24 months. This will spur industrial development along Lower Valley Road. After connection of Parkesburg to the Coatesville system, it is conceivable that sewers could be extended to the Routes 30 and 10 area, which will experience increased growth pressure upon completion of the Route 30 By-pass (Exton By-pass segment).

Land Use Plan Categories

STREAM CORRIDORS

On the Future Land Use Plan, Stream Corridors are indicated along Buck Run, Officers Run and its tributaries, Valley Creek and its tributaries, Pine Creek and Octoraro Creek. These Stream Corridors correspond with those areas designated Stream Corridor in the Township Open Space, Recreation and Environmental Resources Plan.

The Stream Corridors contain wetlands, hydric soils, linear features and floodplains along the watercourses. Protecting these areas will provide a buffer along watercourses, protection of groundwater discharge/recharge areas, protect the quantity and quality of surface and groundwater, while also providing a system of open space.

The Stream Corridors should be preserved as open space by private property owners. The Township will work with property owners to evaluate developing linear stream parks within the stream corridors. Such parks could be used for passive recreation activities, such as

fishing, walking and picnicking. Efforts should be made to develop trails in the stream corridors, particularly the Valley Creek Corridor. A Valley Creek trail could link Parkesburg, the Township, Atglen, the Octoraro scenic area and any recreation areas developed along Valley Creek in the Township.

Provisions in the Township's Zoning and Subdivision and Land Development Ordinances can be used to protect the Stream Corridors. The resources contained within the corridors now are typically required to be "netted out" during analysis of potential subdivisions, to determine the land which may be built upon. The practice of "netting out" the water resources should continue, with consideration of sufficient buffers adjoining the resources.

The existing Zoning Ordinance has Floodplain Regulations which establish the 100-year floodplain as an overlay to the existing underlying Zoning Map. Building is generally restricted. The Zoning Map does not identify any floodplains or other resources within the Township. Consideration could be given to mapping Stream Corridor protection areas on the Zoning Map and protecting those areas from development.

AGRICULTURAL

Agricultural areas are in a band across the Township north of Route 30, in the area of Limeville, Blackhorse, Moscow and Harry Roads. Another band of Agricultural land is found across the Township south of Route 30, in the vicinity of Swan, Mt. Vernon, Strasburg and South Blackhorse Roads. These are areas which contain significant amounts of prime agricultural soils and in which agricultural activities are practiced. The Township wishes to encourage the continuation of agricultural activities, which have comprised a major component of the economy of the Township, in these areas. If agricultural activities continue, this will help fulfill the overall goal of the Township to maintain the rural-agricultural character of the Township, which makes it such a pleasant community in which to live.

The Township wishes to work with private property owners to encourage the continuation of agricultural activities in those areas of the Township where agricultural is currently practiced. Agricultural related uses are anticipated to be the major land use within the agricultural areas, however provision could be made for nonresidential development such as farm-related businesses.

Provision will be made for additional residential development, however this must be done while maintaining the integrity of the agricultural area. The current approach in the Township Zoning Ordinance is to have one acre zoning, netting out from development 80 percent of prime agricultural land. This allows for removal of 20 percent of prime agricultural lands and can result in a pattern of scattered residential areas among agricultural land, which could result in future conflicts. Development could occur in locations inappropriate for the efficient continued agricultural activities.

Another zoning approach is very large lot zoning, requiring parcel sizes 40 to 50 acres. This places severe restrictions on the use of property, and is not currently as widely used as the "sliding-scale" approach. In the sliding scale approach, subdivision of lots is permitted on a limited basis, with a maximum number of lots determined by the gross farm tract size. Typically the larger the farm, the more lots are permitted to be created. Typically, the lots are required to be created on land which is not prime agricultural land and have a maximum size, to minimize the removal of prime agricultural land from farm operations.

Another approach would be to permit cluster development in nonprime areas. To permit this approach to preserving the agricultural land, it might be necessary to provide for relatively high net densities of development provided acceptable community sewerage systems (such as land-application on preserved farmland) were utilized. Care should be taken for planning extension of public sewer systems to agricultural areas, as this typically is not consistent with the desire to preserve the agricultural areas for agricultural uses.

Other approaches to encouraging the protection of agricultural areas are to work with farmers in establishing Agricultural Security Areas. Such an area is under formation in the Township. Once it is formed, the Township should work with farmers to expand the areas. In particular, an effort should be made to include land designated agriculture which is not proposed for the Agricultural Security Area in the Area. One small area proposed for the Agricultural Security Area has not been included in the Agricultural land use category. The area along Route 372 has been zoned Industrial for a long time, is located among industrial and commercial properties and the expected future use is industrial.

The Township should also discuss with farmers other programs which exist for preserving farms, such as the Chester County Agricultural Conservation Easement Program and reduced assessed value under Act 515.

A transfer of development rights (TDR) program can be an effective way to preserve agricultural lands while allowing for economic return to land owners. Under a TDR program, the rights to develop a parcel of land could be severed from that parcel and transferred to a parcel upon which more intense development is appropriate. For example, the Agricultural areas could be sending areas while receiving areas would be the Medium Density Residential areas discussed below. Development at densities greater than normally permitted within the Medium Density Residential area could be utilized provided development rights were purchased from land owners in the Agricultural areas. The Township would have to establish a basis for determining the development value which could be sold. The result of a TDR program would be that development would occur outside the Agricultural areas and the land within the Agricultural areas would have no development rights. In effect a conservation easement would be established. The sending and receiving areas would be established by the Township, however the decision to transfer rights would be that of landowners.

RURAL

Rural areas are found in the northern tip of the Township, in the vicinity of Quarry and Moscow Road, and in the Creek Road area in the southwest tip of the Township. It is anticipated that agricultural activities and single family residential uses would be permitted on lots of at least 2 acres.

The land in the northern tip of the Township contains the largest expanse of woodland within the Township. It is not well served by major traffic arteries, is not likely to be served by public sewer and water in the foreseeable future, and is removed from the expected growth areas of the Township. One acre zoning does not seem to be appropriate for this area.

Some protection is afforded to woodland in the Township Zoning Ordinance, by requiring a minimum of 34 percent of woodland, as defined by the Zoning Ordinance, to be preserved in a natural condition on each parcel of land. This still permits up to 66 percent of woodland to be cleared from a tract of land, which appears to be excessive. Additional help in preserving woodland should be secured by increasing the minimum percentage of woodland to be preserved.

The Creek Road area is a very scenic agricultural area near the Octoraro Creek, which has been designated as a scenic river. A large stream corridor area is found along the Octoraro and Valley Creeks. Intensive residential development would not be in keeping with the nature of this area.

LOW DENSITY CLUSTER

Low Density Cluster areas are found north and west of Atglen Borough. The area north of the Borough is located in the vicinity of Swan and Church Roads, adjoining the Borough of Atglen watershed. The Low Density Cluster area west of the Borough is located along Gap-Newport Pike. In both of these areas, the predominant land use is woodland. Because of the proximity to Atglen Borough and potential for service by public sewer and water facilities in the future, it is felt that a two acre designation would not be appropriate. The typical land use would be Single Family Residential on one acre lots. As noted in the discussion of the Rural area above, provisions should be made in the Zoning Ordinance for protection of a greater percentage of wooded areas. If public sewer and water were made available, and if dwelling units were clustered such to preserve all but a small portion of wooded areas, a net density of up to 3.5 dwelling units per acre could be considered, with the overall density remaining one dwelling unit per acre.

LOW DENSITY RESIDENTIAL

Low Density Residential areas are found south of Route 30 on either side of Blackhorse Road; at the intersection of Limeville Road and Blackhorse Roads along Newlin Lane north of Route 30; in the vicinity of Strasburg, Zook and Mount Vernon Roads in the western portion of the Township; and in a band from Atglen Borough to Parkesburg Borough extending north from the railroad tracks to the Church Road and Cemetery Road areas. These areas contain a mixture of residential uses, woodland, farm land and open areas. Most of the residential development in the Township has occurred in these areas. The intention of the Township is to permit infill and limited expansion of the residential areas.

In the Low Density Residential areas, it is anticipated that single family detached dwellings will be permitted on lots ranging from one acre minimum with on-site sewage disposal and water supply to 10,000 square feet lots (3.5 dwelling units per acre) if public sanitary sewer and water facilities were available. Existing agricultural activities would be allowed to continue.

MEDIUM DENSITY RESIDENTIAL

Medium Density Residential areas are found north of Atglen Borough between Gap-Newport Pike and Zook Road (along Route 41) and at three locations in the east central portion of the Township: in the vicinity of the Township building and park along Moscow Road, in the vicinity of Leike and North Limestone Roads and an area along Leike and Blackhorse Roads. The Medium Density Residential areas are generally undeveloped at this time and are anticipated to be the major growth areas in the Township in the future. It is anticipated that with on-site sewer and water facilities single family homes would be permitted on lots with a minimum size of one acre. If public or community sewer and water facilities would be available, single family, two family and multiple family development would be permitted at densities of up to six dwelling units per acre.

The area in the vicinity of Gap-Newport Pike, Route 41 and Zook Road is serviced by the Principal Arterial Route 41. In addition, the potential exists for public sewer and water service. The three areas in the general vicinity of Route 30 abut proposed Neighborhood Commercial, General Commercial and Office/Commercial areas. They will provide a transition zone from the nonresidential development to Low Density Residential and Agricultural development. These areas are not far from Route 30, a Principal Arterial. The completed Route 30 Bypass will terminate just east of this area in Sadsbury Township and can be expected to result in increased development pressures on this area in the future. This area could eventually be served by public or community sanitary sewer and water service.

WATERSHED PROTECTION

The area along Church Road designated Watershed Protection is the Borough of Atglen watershed. This area is owned by the Borough and the future land use classification reflects the need to continue protecting this area.

PUBLIC

The Public land uses indicated on the plan include the existing Township building and park along Moscow Road, the existing Township fire pond at the intersection of Route 30 and Blackhorse Road, a proposed Township passive recreation area in the Lenover area, and a proposed Township passive recreation area between Atglen Borough and Pine Creek, on land now owned by Conrail. Existing and potential usage of these areas will be further detailed in the Community Facilities Plan.

SEMI-PUBLIC

The Semi-public uses include the four churches within the Township. Of particular note are the church along Strasburg Road and the one in Lenover, with which the Township might wish to pursue joint recreation projects. This will be further discussed in the Community Facilities Plan.

NEIGHBORHOOD COMMERCIAL

Neighborhood Commercial areas are found along much of the length of Route 30 and south of Upper Valley Road just west of Parkesburg Borough. The Neighborhood Commercial areas are intended to permit and allow the continuation of local business convenient to residents of the Township. Commercial development has occurred along much of the length of Route 30, although it is scattered and additional development could occur. The Township is not in favor of strip commercial development, however the extent of the Neighborhood Commercial area recognizes the boundaries of the area now containing commercial uses. The Neighborhood Commercial area near Parkesburg Borough has been developed for commercial purposes.

Access along Route 30 is a particular concern of the Township. The Township wishes to preserve the capacity of the Route 30 corridor. To this end, the Township will promote coordinated access management programs and encourage integrated development providing for controlled and limited access.

GENERAL COMMERCIAL

General Commercial land use is indicated between Route 30 and Leike Road adjoining Sadsbury Township. This land has been zoned for general commercial purposes for quite some time. It is intended to be used for a variety of retail and service uses. This is a logical area for such commercial development, along Route 30 and 10 in proximity to the end of the Route 30 Bypass. It is expected to be the major commercial growth area in the Township, and will be located near some of the residential growth areas proposed for the Township. It is anticipated that integrated development, such as shopping centers, would be located within this area.

Because of the location at Routes 30 and 10, access management will be of particular concern, and there should be controlled and limited access to the existing transportation system. It is anticipated that in conjunction with any new development, improvements to the existing circulation system and additional access roads would be constructed. Development impacts on roadway capacity would be monitored to address concerns regarding projected increased traffic volumes and their effects in the Township.

OFFICE/COMMERCIAL

An Office/Commercial area is found north of Route 30 between Routes 10 and Moscow Road. This area has historically been zoned Industrial-Commercial, and such a classification seems appropriate given its location along the major traffic arteries near the end of the Route 30 Bypass. An Office/Commercial area is also found north of Atglen Borough between Route 41, another Principal Arterial, and Gap-Newport Pike. Nonresidential activity already exists in this area. This area also has historically been zoned Industrial-Commercial.

The intent of the Office/Commercial area is to provide local employment opportunities such as an office park or research center. Commercial uses compatible with and supportive to these types of uses would also be permitted.

An access management program will be important. Integrated development providing for controlled and limited access to Routes 10 and 30 and Route 41 and Gap-Newport Pike should be encouraged.

INDUSTRIAL

An industrial area is found in the southern portion of the Township, from Parkesburg Borough to Atglen Borough south of the railroad tracks, bisected by Lower Valley Road. This area has been traditionally zoned Industrial, and has experienced commercial and industrial development. It is anticipated that industrial and office development will occur in this area.

Of particular concern in the Industrial area is the high yield aquifer (Conestoga Formation), which has been designated Limestone Overlay District in the Township's Open Space, Recreation and Environmental Resources Plan. The high yield aquifer presents a potential water supply as well as an area where groundwater resources can be polluted because of the limestone nature of the formation. As development occurs, safeguards to prevent pollution of the groundwater should be established. This could be done by developer recognition of this sensitive carbonate area and by having protective procedures and standards applicable to the area developed and adopted by the Township. Public sewage disposal, rather than on-site systems, should be utilized.

POTENTIAL LENOVER HISTORIC DISTRICT

The Township will consider pursuing the creation of an historic district in the Lenover area, based upon the Chalfont Auto Factory and other structures in the vicinity of the auto factory building. The Township could then create a Board of Historic Architectural Review which could regulate actions taken within the Historic District, if such district were certified by the Pennsylvania Historic and Museum Commission. Historic sites should be preserved and protected from incompatible uses because they are the remaining heritage of the Township and the documentation will trace the development of the Township for current and future Township residents.

Accommodation of Housing Needs

The following table lists approximate acreage in West Sadsbury Township for the proposed land use categories which would likely accommodate most future residential development, Rural, Low Density Residential, Low Density Cluster, and Medium Density Residential.

APPROXIMATE AVAILABLE ACREAGE WEST SADBURY TOWNSHIP

<u>Proposed Land Use Category</u>	<u>Acres</u>	<u>Residential Capacity</u>
Rural	740	296 units (2 acre lots)
Low Density Residential	370	296 units (1 acre lots)
Low Density Cluster	260	208 units (1 unit/acre)
Medium Density Residential	470	376 units (1 acre lots)
	<u>1840</u>	<u>1176 units</u>

The Township recognizes the need to plan for the housing needs of present residents of the Township and of those individuals and families anticipated to reside in the Township.

The approximate available acreages total 1840. At the maximum permissible densities, with no public sanitary sewer and water facilities available, 1176 units could be constructed. If public sewage disposal and water become available, a greater capacity will exist. In Table V-7, it was calculated that a household increase of 555 would have to be accommodated by the year 2020. The proposed Land Use Plan will more than accommodate the projected household increase.

The capacity figures above are based upon single family detached dwellings or mobile homes utilizing on-site sewage disposal. In 1990, 79.6% of the housing units were single family detached and 13.6% were mobile homes, accounting for 93.2% of the dwelling units. If public sewage disposal and water became available, development at higher densities could occur, as smaller single family lots, multiple family development or both. In 1990 there were no housing units in groupings of 5 or more. If development occurred at the maximum proposed density of 6 dwelling units per acre as multiple family development in the Medium Density Residential area, capacity would increase by another 2350 dwelling units.

The Land Use Plan provides for a range of densities of development and housing types. While single family development is proposed in most residential land use categories, multiple family development will be accommodated in the Medium Density Residential areas. Densities will range from one unit per two acres in the Rural areas to six units per acre in the Medium Density Residential areas. Until public sewer and water become available, new development will occur as single family detached dwellings, with a few mobile homes. After public sewer and water become available, it is likely that there would be demand for some multiple family units, particularly in the vicinity of Routes 30 and 10. The Township must also make provision for mobile home parks.

One of the stated objectives of the Township is to provide for the retention of the character of the existing residential areas within the Township. To accomplish this, most existing residential areas of the Township are proposed for single family development at densities of development similar to what exists.

To ensure the adequacy of existing and proposed buildings in the Township, the Township will investigate the adoption of Housing, Building and Fire Codes. The condition of the current housing stock is generally good and not a concern. The Township should, however, undertake a field survey of the housing stock in the Township to identify any properties in need of significant maintenance or rehabilitation. The Township could work with the property owners and appropriate housing agencies to develop a maintenance and/or rehabilitation program.

Implementation Tools

TOWNSHIP ZONING ORDINANCE REVISIONS

A major tool in implementing the Future Land Use Plan will be the Township Zoning Ordinance. The land use pattern proposed in the Future Land Use Plan can be accomplished through mapping of zoning districts and provisions in the text.

The current Zoning Map includes much of the Township in the Residential District, which provides for single family detached development on one acre minimum lots with on-site sewage disposal and water supply, and a wide range of dwelling types at higher densities if off-site disposal and water supply is available. On the Future Land Use Plan, Residential

areas are designated Rural, Agricultural, Low Density Cluster, Low Density Residential and Medium Density Residential. The Township should consider appropriate zoning map changes to reflect the more diverse land use pattern which is proposed. It is likely that additional zoning districts will have to be mapped and provisions for permitted uses and area and bulk regulations created. The Township should investigate the creation of an Agricultural zoning district for those areas designated Agricultural.

Consideration should also be given to establishing a zoning district which would attempt to reduce the amount of clearance of woodland which might occur should development take place by providing for a larger lot size.

In the existing wooded areas, as a minimum, greater percentages of woodland should be required to be retained under the Site Capacity Determination procedures in the Township Zoning Ordinance and Subdivision and Land Development Ordinance. These procedures are discussed in Chapter VI. Currently only 34 percent of woodland is required to be retained in residential developments.

The Site Capacity Determination procedures contain open space ratios of 1.00 for floodplains, floodplains soils, streams, lakes or ponds and wetlands. The importance of these resources has been discussed in this plan, and a Stream Corridor land use classification has been created. The 1.00 open space ratio is necessary to protect water resources and should be retained. Open Space ratios of .90 have been established for limestone areas and slopes greater than 25 percent. The importance of these resources has been discussed previously, and these ratios should be retained.

Because some areas of the Township have been developed for single family development, and some undeveloped portions of the Township are better served by a circulation system than others, the Township may wish to consider the creation of more than one residential district. Higher densities of residential development might better be directed in those undeveloped areas where an appropriate road system is available. In those areas that have already developed for single family dwellings, it may be desirable to maintain the character of the existing residential development.

The statement of community development objectives within the Zoning Ordinance should be expanded to reflect the goals and objectives in this Comprehensive Plan.

The Township should also consider creation of an Overlay Limestone Protection District to protect the high yield aquifer in the southern portion of the Township. Additional performance standards could be established for industrial and commercial uses in order to protect the high yield aquifer. A high open space ratio for limestone areas should be maintained even when public sewage disposal is available. The preparation of wellhead protection and well interference standards should be investigated. Consideration should be given to prohibiting certain activities, such as sanitary landfills and storage of materials which could pose a hazard to groundwater resources.

When development would occur within the Overlay District, certain review procedures should be required to be followed by the applicant and data on resources within the District provided to the Township for review. The applicant should be required to indicate what measures would be taken to protect the carbonate features and the groundwater.

Consideration should be given to adding material dealing with historic preservation, such as requiring mitigation of adverse affects from new development and requiring Township review of development at and near historic resources. Mitigation could occur through the use of setbacks, landscaping and screening. Review of development near historic resources would be for the purpose of establishing guidelines for development which would be in keeping with the presence of historic resources. Reuse and conversion of historic structures, to keep them viable, could also be encouraged.

Consideration should also be given to establishing a scenic road overlay districts along the scenic roads in the Township and directing dense development away from the scenic roads. Provisions for minimizing visual impacts along scenic roads, such as greater setbacks, additional landscaping, and standards for siting of buildings, should be considered. Overlays encompassing viewsheds for scenic vistas could be established. Restrictions on building height and placement could be established within such areas.

Consideration should also be given to adding cluster development provisions to the Zoning Ordinance. Under the Cluster Development technique, smaller than normal lots would be permitted, provided the overall density permitted within a district would be maintained through the permanent preservation of open space. The open space requirement could be used to preserve sensitive environmental, scenic and historic resources.

To facilitate circulation within the Township, the Zoning Ordinance should contain proper setbacks from roads, appropriate standards for driveway design, appropriate setbacks for buildings from driveways and streets and provisions controlling access with existing streets, such as requiring coordinated access among adjoining landowners at appropriate planned locations.

The Township should consider whether impact statements will be required to be submitted with requests for zoning amendments. Such impact statements would address the environmental impact, including the impact on woodlands, agricultural soils, floodplains, wetlands, hydric soils, historic sites, water quality, carbonate areas, steep slopes, scenic roads, and scenic vistas.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

The Subdivision and Land Development Ordinance does not regulate the use of land. Rather it regulates the process of developing the land and planning for that development. The nature of revisions which could be considered for the Subdivision and Land Development Ordinance would be to require developers to identify the various resources within tracts, analyze the impacts of their developments, and mitigate those impacts.

For instance, plan data requirements could be expanded to include a specific listing of environmental, scenic, historic and cultural resources. Environmental assessment studies, hydrogeologic studies, scenic, historic and cultural resources impacts studies and plans for preservation of environmental, historic and cultural resources could be required.

Development guidelines could be established for development in areas of the high yield aquifer and development near scenic roads and vistas.

Traffic impact studies should be required and design guidelines presented for addressing access management issues.

Consideration should be given to adding provisions for protection of vegetation during site work, adding standards for sedimentation and erosion control measures and practices and expanding and strengthening regulations governing stormwater management practices.

In the review of plans, the requirements for setting aside open space could be used to preserve the stream corridors identified in this plan. Policies for requiring open space should be reviewed.

ADDITIONAL TOWNSHIP ACTIONS

With regard to Agricultural areas, the establishment of the Agricultural Security Area should be pursued, and the area expanded over time. Consideration should be given to the establishment of a transfer of development rights program. Other programs should be discussed with farmers, such as the Chester County Agricultural Conservation Easement Program and reduced assessed value under Act 515.

The establishment of a Historic District in the Lenover area should be investigated. Owners of historic resources should be encouraged to pursue obtaining National Register of Historic Places listing for their properties. The Township should also consider creating a Township Historical Commission.

Act 537 Sewage Facilities Planning should be coordinated with the Land Use Plan. The Township should investigate the possibilities for making public sanitary sewer facilities available within the Township, particularly in the area of the high yield aquifer and areas designated for the greatest growth in the future. Consideration should be given to not planning the extension of sanitary sewer facilities into areas designated for agricultural preservation.

Conservation easements are a method of preserving open space resources, such as stream corridors. The Township could pursue discussions with landowners of identified resources regarding potential usage of conservation easements to preserve those resources.

CHAPTER XI CIRCULATION PLAN

Introduction

The Circulation Plan for the Township establishes policies for achieving the goals and objectives of the Township for circulation. The overall goal of the Township is to provide for an efficient circulation system within the limits of the existing transportation system within the Township. The emphasis will be to maintain or improve the efficiency of the existing system rather than create a new system. Objectives are to promote and coordinate an access management program; encourage integrated development providing for controlled and limited access to the transportation system; preserve the scenic road corridors within the Township; preserve the capacity of the existing roads in the Township as future development occurs; plan for a system of local roads that provides safe, convenient internal circulation and access to primary routes of travel; provide for maintenance of the existing circulation system as warranted and identify concerns within the system; and monitor development impacts on roadway capacity to address concerns regarding projected increased traffic volumes and their effects on the Township. It is also necessary to keep in mind the overall goal of the Township to maintain the rural agricultural character of West Sadsbury Township.

The major components of the Circulation Plan are the Future Highway Classification and possible improvements to the circulation system.

Previous Circulation Planning

In the 1978 Comprehensive Plan for the Township, the transportation plan presented a street classification and proposed improvements. Route 41 north of Atglen was classified as a Major Arterial. Route 30, Route 10, Swan Road, Strasburg Road and Route 372 were classified as Minor Arterials. Moscow Road, Leike Road, Limestone Road, Blackhorse and South Blackhorse Roads, Upper Valley Road, Church Road, Cemetery Road, Zook Road north of Gap-Newport Pike and South Lenover Road were classified as Major Collectors. Minor Collectors included Limeville Road, Quarry Road, Lenover Road, South Limestone Road, Creek Road, Gap-Newport Pike and Zook Road south of Gap-Newport Pike. The classification appeared to be over inclusive, excluding only a few roads within the Township from the Collector or Arterial designation.

Proposed alignment improvements were indicated for Blackhorse and South Blackhorse Roads at Route 30, the bend in Swan Road, South Blackhorse Road in the vicinity of Leike Road, the right angle bend in Leike Road, a bend in South Lenover Road north of Route 372 and a bend and curve in Zook Road.

WEST CALN
TOWNSHIP

- LEGEND**
- PRINCIPAL ARTERIAL
 - MINOR ARTERIAL
 - MAJOR COLLECTOR
 - LOCAL ACCESS ROAD
 - POTENTIAL REALIGNMENT
 - POTENTIAL ROAD CORRIDOR
 - SCENIC ROAD
 - ACCESS MANAGEMENT PRIORITIES

SADSBURY
TOWNSHIP

BLACK
HORSE

LANCASTER COUNTY

PARKESBURG
BOROUGH

LENOVER

HIGHLAND
TOWNSHIP

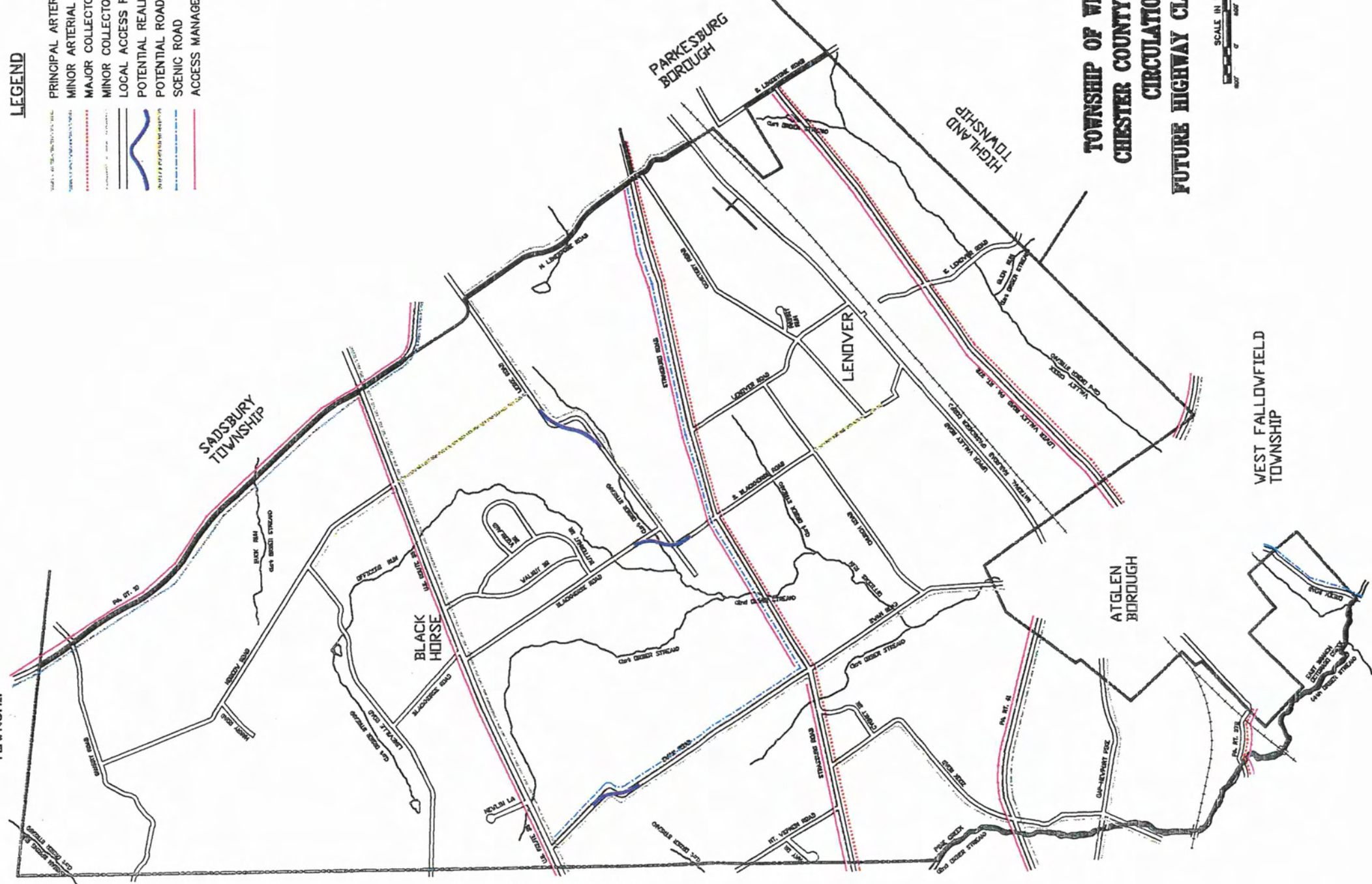
ATGLEN
BOROUGH

WEST FALLOWFIELD
TOWNSHIP

**TOWNSHIP OF WEST SADSBURY
CHESTER COUNTY, PENNSYLVANIA
CIRCULATION PLAN**

FUTURE HIGHWAY CLASSIFICATION MAP

SCALE IN FEET
0 500 1000 2000



Intersection improvements were shown at Limestone Road and Leike Road; Strasburg, Limestone and Cemetery Roads; Limestone and Upper Valley Road; Church Road and Swan Road; Route 372 and South Lenover Road; and intersections of Lenover Road and South Lenover Road with Upper Valley Road.

New construction was shown completing South Blackhorse Road from Church Road to Upper Valley Road.

Bridge improvement was indicated along Swan Road just north of Atglen, Lenover Road north of Church Road and the bridge over the railroad tracks south of Upper Valley Road.

Future Functional Classification

The Future Highway Classification is as follows:

Principal Arterials

Route 30
Route 41

Minor Arterials

Route 10

Major Collectors

Strasburg Road
Lower Valley Road (Route 372)

Minor Collectors

Moscow Road (between Limeville Road and Route 30)
Swan Road
Leike Road
North Limestone Road
Zook Road
Gap-Newport Pike

All other roads are local access roads.

There are several changes from the existing highway classification to the future highway classification:

<u>Road</u>	<u>Existing Classification</u>	<u>Future Classification</u>
Route 10 north of Route 30	Major Collector	Minor Arterial
Moscow Road near Route 30	Local Access	Minor Collector
Swan Road	Local Access	Minor Collector
Strasburg Road	Minor Collector	Major Collector
Leike Road	Local Access	Minor Collector
North Limestone Road	Local Access	Minor Collector
Gap-Newport Pike	Local Access	Minor Collector
Zook Road	Local Access	Minor Collector

Land Use Patterns and the circulation system are interrelated. Designations of future land use are influenced by the existing and proposed circulation systems, and existing and future land use patterns will affect the circulation system and the functions which roads play. For instance, commercial land use has generally been proposed near the arterial roads within the Township. As future development occurs in the Township, the roads in the vicinity of that development will experience increases in traffic volumes, and potentially changes in classification, as they collect traffic from development.

The Future Land Use Plan proposes Medium Density Residential development, Office/Commercial development and Medium Density Residential development in the vicinity of Route 41, Gap-Newport Pike and Zook Road. Both Gap-Newport Pike and Zook Road have classification changes from Local Access to Minor Collector.

Office/Commercial development, General Commercial development and Medium Density Residential development are proposed in the general vicinity of Route 10, Route 30, Leike Road, North Limestone Road and Moscow Road. The classifications of a portion of Moscow Road, Leike Road and North Limestone Road are proposed to change from Local Access to Minor Collector. Route 10, which is at the terminus of the Route 30 Bypass, changes from Major Collector to Minor Arterial.

Strasburg Road, which is anticipated to become more important as an alternative route to Route 30 in the future, changes from Minor Collector to Major Collector. Swan Road, which links Route 30, Strasburg Road and Route 41, changes from Local Access Road to

Minor Collector. It is not anticipated that the functions of Strasburg and Swan Roads will change because of immediately abutting land use patterns, as abutting land use is proposed to be Agricultural. These roads are also considered scenic roads and attempts will be made to have them remain scenic roads.

The following table of desirable design standards developed by the Chester County Planning Commission for the Highway Needs Study presents design standards for the roads with different functional classifications. The Township should consider incorporating such a table of standards into its Subdivision Ordinance.

Proposed Road Improvements

Potential road realignments are indicated at the bend in Swan Road, the offset of Blackhorse Road at Leike Road and the sharp bend in Leike Road. If development occurs at these intersections in the future, the Township will encourage landowners to make alignment improvements in conjunction with their developments. There is an alignment problem where Blackhorse Road intersects Route 30, but existing land use patterns do not make realignment feasible.

Potential road corridors are indicated at Lenover and between Route 30 and Leike Road. The potential road between Route 30 and Leike Road would serve as an access road for proposed general commercial development. Construction of such a road could accommodate increased traffic and distribute it to Route 30.

A gap exists in the road system between Church and South Blackhorse Roads and Upper Valley Road. The plan suggests that the missing segments of this road be constructed.

The Township should prioritize the road improvements. If it desires the top-ranked projects not included within PennDOT's 12-year or County list of highway improvements to be funded by other governmental agencies, the County Planning Commission should be contacted.

Access Management

While access management will be a concern along all roads within the Township, particularly those with Collector and Arterial designations, the roads which were indicated as having particular access management and corridor concerns on the Circulation Conditions Map have been identified as roads needing access management. These include Route 30, Route 10, Route 41, Route 372 and Strasburg Road. Routes 30, 10, 41 and 372 are the roads along which industrial, commercial and office development will occur in the future. Strasburg Road is expected to experience increased traffic volumes for traffic moving through the Township in a west-east direction. Methods of access management will be detailed in the Recommendations section below.

DESIRABLE DESIGN STANDARDS

	Number of Lanes	Travel Lane Width	Median Width	Left Turn Lane Width	Right Turn Lane Width	Shoulder Width	(1) Buffer Width	(2) Right-of-Way Width	Design Speed	Maximum Percent Grade	Maximum Horizontal Curve	Passing Sight Distance
Principal Arterial	2-6	12'	16'	12'	14'	10'	15-20'	100-150'	60 MPH	6%	12 degrees	2,100'
Minor Arterial	2-4	12'	6-16'	12'	14'	10'	15-20'	85-100'	60 MPH	6%	12 degrees	2,100'
Major Collector	2-3	12'	0-6'	10-12'	10'	8-10'	10-15'	60-80'	50 MPH	8%	21 degrees	1,500'
Minor Collector	2-3	11-12'	None	10-12'	10'	6-8'	10-15'	60-80'	40 MPH	9%	21 degrees	1,500'
Local Access	2	10-12'	None	None	None	6-8'	10-15'	50'	30 MPH	10%	30 degrees	1,100'

Source: Derived from design ranges specified by AASHTO, PennDOT, and other design manuals, from Highway Needs Study, Chester County Planning Commission, March 1990

- (1) Buffer area is the land adjacent to the shoulder used for sidewalks, planting strips, utilities, drainage, street furniture and side slope grading.
- (2) Right-of-way varies according to the slope of the land adjacent to the roadway. The more severe slopes require greater right-of-way.

Pedestrian Circulation

Each development proposal which comes before the Township should be reviewed for the appropriateness of requiring a pedestrian circulation system within the development and connecting to adjoining developed or developable land. Particular attention should be paid to the Route 10 - Route 30 - Moscow Road area, which is expected to experience the most and highest density commercial and residential development in the Township in the future. The Township Building and Park, residential areas and commercial areas should be linked by a pedestrian circulation system.

Recommendations

Adoption of Appropriate Road Construction Standards

The Township should adopt appropriate design standards for new road construction and improvements to existing roads for inclusion within the Township Subdivision and Land Development Ordinance.

Review of Development Proposals

Traffic impact studies should be required for proposed developments. Such studies typically require analysis of existing circulation conditions, the impact of the proposed development and resultant circulation conditions and the need for traffic improvements to adequately support the development. The requirement for such studies could be included within the Subdivision and Land Development Ordinance. Potential items for inclusion in the traffic impact studies are listed in the Traffic Impact Checklist which follows.

The roads which could be most significantly impacted by development which could occur pursuant to the Future Land Use Plan are Route 30, Route 10, Moscow Road, Blackhorse Road, Leike Road, Route 41, Gap-Newport Pike and Lower Valley Road. Proposed road improvements on these roads should be given the highest priority. Access Management will need to be practiced to maintain the carrying capacity of the roads. Development along Route 10 and Route 30 will be commercial; development along Lower Valley Road will be industrial; development along Route 41, Gap-Newport Pike, Moscow Road and Leike Road will be both commercial and residential; development along Blackhorse Road will be residential.

TRAFFIC IMPACT CHECKLIST

- How much traffic will the development generate each day and each peak hour?
- How will this traffic be distributed to the existing highways?
- Does the adjacent road network currently experience any congestion or safety problems?
- Will the added road traffic create congestion or safety problems on the adjacent road network?
- Will the proposed access points conflict with existing access on adjacent or opposite-side properties?
- Do the proposed access points allow for all turning movements?
- Should some turning movements be restricted because of poor sight distance, steep grades or high speed traffic on the adjacent highway?
- Will left-turns into the development lead to an increase in rear-end or head-on collisions?
- Can traffic move freely into the development without causing back-ups into the adjacent highway?
- Are grades on the access points adequate to avoid dramatic speed changes from the adjacent highway?
- Are curve radii wide enough to allow easy turns into the development?
- Should deceleration lanes be provided?
- Is internal parking proposed too near to the access points so that parking maneuvers could cause accidents for vehicles turning into the development?
- Are ingress and egress lanes clearly marked or divided?
- Do access roads form right angle intersections?
- Should access be limited to a new marginal access frontage road serving all frontage properties?
- Can access points be located on secondary adjacent streets?
- Can access points be located to tie into existing traffic signals?
- If new traffic signals are necessary can they be interconnected with other signalized intersections?
- Are adequate but stop provisions made on adjacent streets where public transportation is feasible?
- Can emergency vehicles gain access to all parts of the development?
- Do the primary internal roads cause pedestrian problems by being located between the parking areas and the building access points?
- Would pedestrian facilities be useful on the property frontage?
- Should parking be permitted on internal streets?
- Is there an excess or shortage of parking spaces for the type of development?
- Is internal parking inappropriately located within the right-of-way of the adjacent highway?
- Are internal streets wide enough (or too wide) to handle the type and amount of traffic to be generated?
- Are adequate facilities provided for delivery vehicles away from the primary internal roads?
- Do internal streets form right angle intersections?

Access from developments onto roads should be done in the manner which least disrupts traffic flow along the road. Access points must be properly located and designed. If access is not properly located and designed, the flow of traffic along the road can be disrupted and safety hazards can result. It is necessary to take into account the location of existing roads and existing land uses and access points along nearby properties. Access to streets should be coordinated among adjoining land owners. This can be accomplished through the review process of Subdivision and Land Development plans, but also through the appropriate design standards in the Subdivision and Land Development and Zoning Ordinances. These Ordinances should provide for proper setbacks from roads, appropriate standards for road and driveway design, appropriate setbacks of buildings from driveways and streets and provisions controlling access with existing streets.

In the case of proposed development with access to state routes, the Township should work with PennDOT to assure that appropriate controls on access are established.

Scenic Roads

Consideration should be given to providing a scenic road overlay along Swan Road, Strasburg Road and Creek Road in the Township Zoning Ordinance. Within such an overlay district, greater setbacks along the roads could be required, additional landscaping requirements could be established and design standards for siting of buildings could be established, in order to minimize visual impacts of any developments along the scenic roads. In the Land Use Plan, the Township has not provided for dense development along the scenic roads. In addition to helping protect the scenic resources, this helps discourage heavy traffic and the creation of numerous driveway intersections along the road. Generally, road improvements by the Township would be limited to those necessary for user safety which can be accomplished with minimal disruption of the road's scenic qualities.

Access Management

Access restrictions could be applied to roads through Ordinance provisions and the design process. The following access restrictions for the functional classification of roads are presented in the Highway Needs Study by the Chester County Planning Commission:

- Marginal access road (optional)
- Reverse frontage lots
- "High volume" design driveway for major land developments with second access on other roads
- Acceleration and deceleration lanes
- Driveway turning speed of at least 25 MPH
- No parking near access points
- Shared driveways where possible
- Driveways must accommodate all vehicle types and must be able to absorb the anticipated maximum volume of peak hour traffic
- Separated, divided lanes for egress and ingress movements
- Minimum driveway spacing of 250 feet
- Median to prevent left-turns
- Left-turns restricted to dedicated left-turn lanes or jug handles

Minor-Arterial:

- Marginal access road (optional)
- Reverse frontage lots
- "High-volume" design driveways for major land development
- Acceleration and deceleration lanes
- Driveway turning speed of at least 25 MPH
- No parking near access points
- Shared driveways where possible
- Driveways must accommodate all vehicle types and must be able to absorb the anticipated maximum volume of peak hour traffic
- Separated, divided lanes for egress and ingress movements
- Minimum driveway spacing of 200 feet
- Occasional median at high hazard locations
- Left-turns restricted to dedicated left-turn lanes

- Reverse frontage
- "High-volume" design driveways for major land developments with second access on other road
- Deceleration lane in cases of problem grades, high traffic volumes, high speeds or poor sight distances
- Clearly delineated ingress and egress lanes
- Driveway turning speeds of at least 15 MPH
- No parking near access points
- Shared driveways where possible
- Minimum driveways where possible
- Minimum driveway spacing of 150 feet
- Left-turn lanes in cases of problem grades, high traffic volumes, high speeds or poor sight distances.

Minor Collector:

- Reverse frontage where possible
- Deceleration lane in cases of problem grades, high traffic volumes, high speeds or poor sight distances
- Driveway turning speeds of at least 15 MPH
- No parking near access points
- Shared driveways where possible
- Minimum driveway spacing of 150 feet
- Left-turn lanes in case of problem grades, high traffic volumes, high speeds or poor sight distances
- Clearly delineated ingress and egress lanes

Local Roads:

- Driveway design for appropriate vehicle use
- Driveway turning speed of at least 15 MPH
- Minimum driveway spacing of 100 feet

From Highway Needs Study, Chester County Planning Commission, March 1990

Additional means of access management include:

- Require driveway paving to increase turning speeds
- Construct all driveways and intersecting streets at right angles to the primary road
- Install physical barrier along property frontage where no controls of access exist. If appropriate, construct access points on side streets in lieu of additional access points on primary street
- Interconnect adjacent properties with site access driveways for internal circulation
- Improve vertical geometrics of driveways (such as flattening sideslopes) to increase turning speeds
- Increase curve radii to increase turning speeds
- Construct or reconstruct one ingress-only driveway and one egress-only driveway in lieu of two two-way driveways
- Construct or reconstruct one ingress-only driveway and one egress-only driveway in lieu of one two-way driveway
- Prohibit slight offsets of opposing driveways and streets
- Regulate minimum and maximum driveway width, spacing, and corner clearance
- Limit or prevent left-turn movements where not appropriate
- Construct separate turning lanes for all moderate or high volume turning movements. This includes left-turn stacking lanes, deceleration lanes, and acceleration lanes
- Improve internal circulation of development to avoid backups and safety problems on the primary road
- Restrict truck delivery times to off-peak hours.

The Township should consider working with PennDOT to develop an access management plan for the Township, which identifies potential areas for future access points and provides examples of improved access designs. Working with PennDOT is important, as most of the roads identified as having access management concerns are state routes. Cooperation of county agencies and individual property owners would also be necessary. Typical elements of an access management study, as outlined in the Highway Needs Study, are:

- Select areas to be evaluated
- Create base maps of satisfactory scale
- Conduct property inventory:
 - Driveways
 - Open curb cuts
 - Structures
 - Setbacks
 - Parking
 - Utilities
 - Drainage facilities

- Conduct traffic inventory:
 - Traffic volumes
 - average daily traffic
 - peak hour counts
 - turning movements at intersections
 - Accidents
 - Existing channelization and median treatment
 - Existing signalization
- Review access permits:
 - Check for compliance
- Review land development proposals
- Review proposed access points
- Determine future traffic volumes
- Review access management techniques
- Develop parcel-by-parcel plan:
 - Coordinate with landowners, PennDOT, and County
 - Develop costs

Funding Sources

The following table prepared by the Chester County Planning Commission identifies funding opportunities for transportation.

TRANSPORTATION FUNDING OPPORTUNITIES

SOURCE	FUNDING TITLE	TYPES OF ELIGIBLE PROJECTS	FUNDING SPLIT	ELIGIBILITY	REQUIRED PROGRAMMING
FEDERAL (ISTEA)	NATIONAL HIGHWAY SYSTEM	Construction or reconstruction of "major" roads	80% FEDERAL 20% STATE	Roads must be on the designated National Highway System	PennDOT 12 year Program, DVRPC TIP
FEDERAL (ISTEA)	SURFACE TRANSPORTATION PROGRAM (STP)	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 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
FEDERAL (ISTEA)	SAFETY COMPONENT OF STP	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
FEDERAL (ISTEA)	TRANSPORTATION ENHANCEMENT ACTIVITIES	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 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
FEDERAL (ISTEA)	BRIDGE	Construction, reconstruction or rehabilitation of bridges	80% FEDERAL 20% STATE OR LOCAL	For any bridge on a public road	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget
FEDERAL (ISTEA)	CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENTS	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
FEDERAL (ISTEA)	TOLL ROADS	Construction and rehabilitation of toll facilities including roads, bridges and tunnels	50% FEDERAL 50% STATE OR LOCAL	For use on publicly owned facilities and in some cases privately owned facilities	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget

TRANSPORTATION FUNDING OPPORTUNITIES (Continued)

SOURCE	FUNDING TITLE	TYPES OF ELIGIBLE PROJECTS	FUNDING SPLIT	ELIGIBILITY	REQUIRED PROGRAMMING
FEDERAL	COMMUNITY DEVELOPMENT BLOCK GRANT (COBG)	Construction and rehabilitation of streets, bridges, pedestrian or parking facilities	100% FEDERAL (DEPARTMENT OF HOUSING AND DEVELOPMENT)	Project must benefit low-to-moderate income housing	Approvals from County Office of Housing and Community Development and State Bureau of Housing and Development
STATE	SAFETY AND MOBILITY INITIATIVES	Various types of safety and capacity improvements on highway corridors with high accident rates	80% Federal 20% State	For use on State Roads	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget
STATE	BRIDGES	Construction, reconstruction or rehabilitation of bridges	100% State or 80% State/20% Local	For use on State and Local Bridges	PennDOT 12 Year Program, DVRPC TIP, State Capital Budget
STATE	COOPERATIVE AGREEMENTS	Limited safety and maintenance improvements	Materials provided by PennDOT, labor provided by municipality	State roads only, Less than \$5,000 cost	
STATE	BETTERMENT OR "3P"	Minor reconstruction or major resurfacing of roads and bridges	100% State or 80% State/20% Local	For use on State Roads	PennDOT 12 Year Program, DVRPC TIP (if Federal Funds are used)
COUNTY	BRIDGES	Construction, reconstruction or rehabilitation of Bridges	100% County (liquid fuels fund)	For use on county bridges	County Engineer's Program
STATE/ MUNICIPAL	TRANSPORTATION PARTNERSHIP	Various safety and capacity improvements	Federal or State share varies by project	Based on the requirements of State Act 47 of 1985	PennDOT 12 Year Program, DVRPC TIP (if Federal Funds are used)
STATE/ MUNICIPAL	TRAFFIC IMPACT FEES	Various capacity improvements as defined in the required Land Use and Traffic Studies conducted by the municipality	Funding share is determined in the Capital Improvements Plan; maximum State participation is 50%	Based on the requirements of State Act 208 of 1990	Municipal Capital Improvements Plan, State Capital Budget, DVRPC TIP (if Federal Funds are used)
MUNICIPAL	DEBT FINANCING	Various capacity, safety or maintenance improvements as defined by appropriate statute	100% Municipal	Limit of indebtedness regulated by State statute; projects must be approved by the governing body and in some cases by the electorate	Municipal Budget
MUNICIPAL	GENERAL FUND	Various capacity, safety or maintenance improvements as defined by appropriate statute	100% Municipal	Projects must be approved by the governing body; Restrictions are identified in the municipal code	Municipal Budget
MUNICIPAL	LIQUID FUELS FUND	Construction, reconstruction or maintenance of bridges and roads	100% State Municipal Allocations are based on Legislative Formula	Projects must be approved by the governing body and PennDOT; Road must be on the approved liquid fuels system	Municipal Budget Program

CHAPTER XII

COMMUNITY FACILITIES AND SERVICES PLAN

Introduction


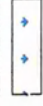
Existing community services and facilities were discussed in Chapter VI. The planning implications for community facilities and services that were identified were that the Township should investigate the potential for serving future development within the Township with public water supply; the Township should complete the Act 537 Plan to identify methods for handling sanitary sewage disposal in the future; the potential for serving future development within the Township with public sewage disposal should be investigated, with particular attention given to the area along Lower Valley Road between Parkesburg and Atglen and the Route 30 area; the Township should keep in mind recreational needs of its residents and monitor the need for future Township action; the proposals for recreational facilities outlined in the Township's Open Space, Recreation and Environmental Resources Plan and Community Facilities Plan should be programmed as Township resources permit; the emergency services, including police, fire and ambulance service, provide adequate coverage for the Township, but that these services should be reviewed periodically to determine their continued adequacy; and the Township should continue to monitor existing enrollment and proposed development and potential additional enrollment with the School District to identify impacts on school facilities.

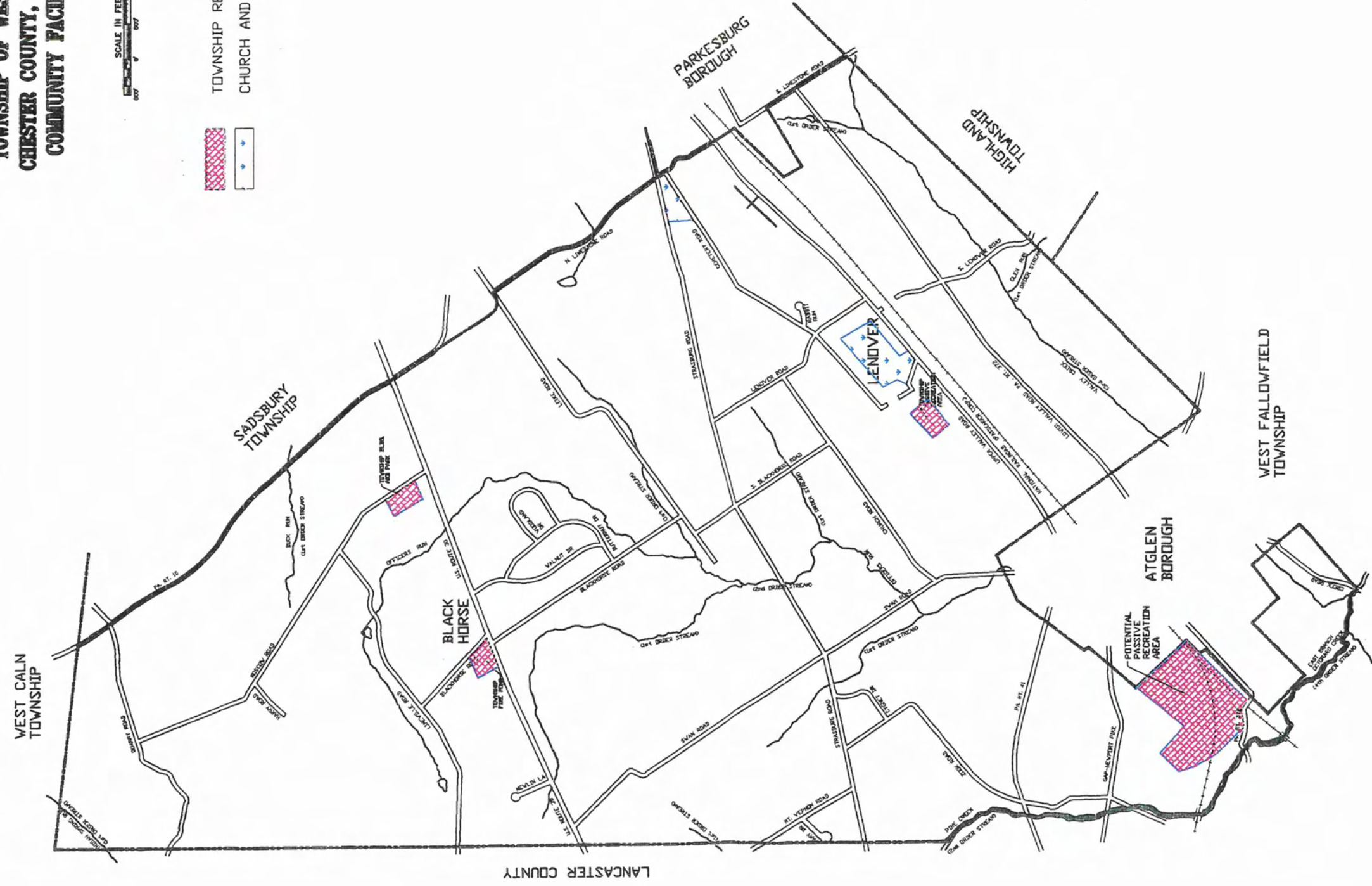
In Chapter IX, Community Development Goals and Objectives, the goal established for community services and facilities was to provide for essential facilities and services necessary to meet the existing and future needs of the Township residents. The stated objectives were as follows:

- Periodically evaluate the demand for community services and facilities to indicate where improvements may be necessary.
- Coordinate future development with the availability of required utilities.
- Consider the provision for various public utilities, such as water and sewage disposal, in areas the Township determines as future growth areas, to ensure the quality and character of future development and the protection of the environment.
- Plan for community facilities efficiently and economically as the need arises.
- Provide for recreational facilities in accordance with the recommendations of the Community Facilities Plan and the Township's Open Space, Recreation and Environmental Resources Plan.

**TOWNSHIP OF WEST SADSBURY
CHESTER COUNTY, PENNSYLVANIA
COMMUNITY FACILITIES PLAN**



-  TOWNSHIP RECREATION FACILITIES
-  CHURCH AND RECREATION



LANCASTER COUNTY

- Consider improving and protecting the character of development in the Township by investigating the adoption of Housing, Building and Fire Codes.
- Promote sound financial planning by adopting capital improvement programs.
- Develop a basis for regulatory measures controlling land uses and development.
- Develop a plan which would be a resource for decision makers when considering development matters.

The Township population is expected to grow from 2,160 to 2,670 from 1990 to the year 2000; from 2,670 to 3,220 from 2000 to 2010; and from 3,220 to 3,960 from 2010 to 2020. The total increase of 1800 represents an 83.3 percent increase from 1990 to 2010. This underscores the necessity for monitoring the need for expanded Township services in the future and to adopt appropriate regulatory ordinances to control that development.

Planning and Regulatory Activities

One of the objectives of the Township is to develop a basis for regulatory measures controlling land use and development. This Comprehensive Plan, particularly the Future Land Use Plan, is intended to accomplish that. The Township supervisors are committed to meeting the long term needs of the residents of the Township through planning and preparation for the future. The Township will strive to achieve a reasonable balance between accommodating the rights of property owners to use and develop their land and reasonable controls regulating the extent and intensity of development and the protection of sensitive natural and historic resources. The Township believes that the proposals for land use accomplish this.

The Supervisors also intend to maintain that balance through the creation, implementation and enforcement of regulations that are founded on sound planning principles that will guide growth and use of the land and other natural and historic resources. The Comprehensive Plan is a resource for Township decision makers when considering development matters. It serves as the basis for regulatory measures, such as the Zoning Ordinance and other codes, controlling land use and development. After completion of the Township's Comprehensive Plan, the Township will review and revise its Zoning Ordinance as necessary to implement the proposals in this Comprehensive Plan. The Township will also address the objective to consider improving and protecting the character of development in the Township through the adoption of Housing, Building and Fire Codes.

Within the Future Land Use Plan and Circulation Plan sections of this report, various recommendations have been made regarding potential provisions for the Subdivision and Land Development Ordinance. The Subdivision and Land Development Ordinance should be reviewed upon completion of this plan.

Educational Facilities

There are no educational facilities within the Township at this time, and the School District has no current plans to develop new facilities. The Township should keep the School District informed of any proposed developments within the Township and monitor existing enrollment and proposed development and proposed additional enrollment with the School District to identify impacts on school facilities.

Police Protection

West Sadsbury Township and Atglen Borough have formed a joint police force to serve the needs of both communities. At the present time the Township does not see a need to expand coverage, however the Township should continue to monitor the adequacy of police service. As development occurs in the Township in the future, it is likely that the need for additional police protection could arise. If growth is directed into designated growth areas in the future and not scattered throughout the Township, this could potentially reduce future costs of additional police and other services and facilities.

Fire Protection

The Township is served by the Parkesburg Fire Company and the Atglen Volunteer Fire Company. Ambulance service is provided by the Parkesburg Rescue Unit, headquartered at the Parkesburg Fire Company. There is no fire company located within the Township boundaries, and none is expected in the near future.

As resources permit, the Township should provide financial support to the fire companies.

As noted above, the Township should investigate the adoption of Housing and Building Fire Codes, which could be valuable in increasing the quality of building in the Township and thus lessening the potential for fires. The Township could also involve fire company personnel in review of Subdivision and Land Development Plans, to secure opinions regarding adequate provision for fire protection capabilities. This could include identifying potential water supplies and making arrangements for access to and use of those water supplies.

The provisions of the Subdivision and Land Development Ordinance as they relate to fire protection should be reviewed, to determine whether any revisions are necessary. Construction debris should be removed from development sites. Adequate standards should be provided for access by fire vehicles. Developers should be required to address, as appropriate, means of providing water supply for fire protection either through community or public distribution systems and fire hydrants or fire ponds or other water supplies. As development occurs, road names should be reviewed with providers of emergency services to avoid confusion during times of emergency, thus delaying response time.

Library Services

There are no library services within the Township. The nearest libraries are the Parkesburg Free Library and the Atglen Reading Center. There are no plans to provide library facilities within the Township at this time. The Township should support the programs of the libraries in the area.

Solid Waste Management

Pursuant to Chester County's Flow Control Ordinance Regulating Municipal Waste and the County's ACT 101 Plan, refuse collectors within the Township are required to dispose of collected refuse at the Lanchester Landfill. Solid waste in the Township is collected by commercial haulers which are contracted by Township residents. There is no recycling program within the Township.

The goals of Chester County, as stated in the Waste Management Plan, are as follows:

- To develop a comprehensive integrated waste management plan for the disposal and processing of County generated waste and recyclable materials for the next ten years.
- To provide a safe, efficient and environmentally sound waste disposal system for all Chester County.
- To continue to utilize the Lanchester Sanitary Landfill and the Southeastern Chester County Refuse Authority Landfill as an essential element in Chester County's long term waste management program.
- To develop a comprehensive network of municipal and private sector recycling programs by providing technical assistance and other incentives to new and established programs.
- To educate County residents about the need to reduce the amount of waste through waste reduction and recycling programs.
- To encourage every County resident to participate in recycling and waste reduction activities through a variety of public and private initiatives and programs.
- To achieve a reduction of waste currently being landfilled by 5% in 1990, 15% in 1992, and 25% by 1995.

No change is expected in the method of collection or location of disposal. The Township should, however, discuss the desirability of establishing a voluntary program for recycling in the Township.

Stormwater Management

Stormwater management and erosion and sedimentation control for new development is regulated by the Township's Subdivision and Land Development Ordinance. During the development plan review process, proposals for stormwater management and erosion and sedimentation control are reviewed for adequacy. As additional development occurs in the Township, it will be important that the Township assure that developers adequately address stormwater management and erosion and sedimentation control. In addition to exercising care in reviewing plans, sites should be monitored and inspected to assure compliance with plans.

The Township should discuss whether groundwater recharge through stormwater infiltration on site should be pursued where appropriate. The Township should also assure that provision is made for long term ownership and maintenance of stormwater management facilities. A program which tracks stormwater management facilities should be established, facilities should be periodically inspected for adequacy, and necessary improvements should be made by the responsible parties as determined by the Township.

Standards for sedimentation and erosion control measures and practices should be added to the Township's Subdivision and Land Development Ordinance. In addition, the regulations governing stormwater management practices should be expanded and strengthened.

Township Administrative Services

While the Township presently has no plans to expand its municipal building and administrative staff, the Township recognizes that as the population increases it will bring increased needs and demands for administrative services. The Board of Supervisors will have to monitor the demands in the future and balance Township staffing with reliance upon consulting services. The objective of the Township will be to provide adequate facilities and staff to conduct Township administrative functions.

Sanitary Sewage Facilities

The Township is currently updating its Act 537 Plan. As part of the Act 537 Plan, the Township will identify the alternative methods of addressing sewage disposal for identified areas within the Township. The area of the Township which is likely to be given first consideration in identifying potential methods for public sewage disposal is the area along Lower Valley Road between Parkesburg and Atglen Boroughs. This area is of particular concern because of the presence of the high yield aquifer, the likelihood of additional industrial and commercial development and the potential for the pollution of the aquifer.

The Route 30 area will also receive particular attention because this area is likely to experience increased development pressure with the completion of the Route 30 Bypass. The area of the intersection of Routes 30 and 10 is designated for the most intense development on the Future Land Use Plan. Commercial, Office and Medium Density Residential development is expected.

The Township does not own or operate a sewage treatment plant, but treatment plants for the Boroughs of Atglen, Parkesburg, and Christiania are located either within or nearby the Township. These treatment facilities do not serve any part of the Township, however they represent alternatives for the Township to investigate when reviewing the potential for serving portions of the Township with public sewer.

The planning for serving areas with sewage disposal should be coordinated with the plan for Future Land Use. Those areas expected to receive the most intense development would be those areas most logically served by sewer facilities. Areas designated to remain Agricultural should generally not be served by public sewer facilities, as this could increase development pressures.

The Act 537 Plan will address which areas of the Township should continue to be served by on-site sewage disposal, which areas could be potentially served by public sewage facilities and which areas could be considered for community sewage systems utilizing land application methods or community subsurface treatment.

Water Supply

The Township is served by individual private wells. While public water is available in Atglen Borough and Parkesburg Borough, the Township is not currently served by public water.

The Township Zoning Ordinance makes provisions for increased densities of development if public water supply and sewage disposal are available. The greater the density of development, the less is the land typically consumed for development. If the Township wishes to preserve agricultural and wooded areas in the Township, it would be desirable to have development served by public water supply. The most likely sources would be the Atglen and Parkesburg (Coatesville Authority) systems.

The watershed for the Atglen water supplies, including wells and reservoirs, is located in West Sadsbury Township. The Township should encourage land use policies which would not adversely affect the watershed area. Any development within the vicinity should be closely monitored, so that runoff, sedimentation and erosion will not affect the watershed.

The high yield aquifer in the southern portion of the Township is a potential source of water supply and an area particularly vulnerable to pollution. The aquifer should be protected as development occurs in the future, such as by encouraging public sewage disposal for the industrial and commercial development which occurs and establishing performance standards for the development.

To maintain the quantity and quality of groundwater, the Township should consider encouraging stormwater management systems that utilize groundwater recharge. The Township can also encourage the use of improved farming practices involving the uses of fertilizer and pesticides and the application of manure. Aggressive control of animal excretions and feedlot management can also be encouraged. Additional means of protecting the groundwater resources include consideration of additional buffer areas adjoining floodplains and wetlands, considering the preparation of wellhead protection and well interference standards, and maintaining a high open space ratio for limestone areas. Very limited maximum impervious coverage standards should be utilized within floodplains.

The Township should consider requiring applicants with subdivision and land development plans to prepare hydrologic studies which address the adequacy of groundwater supply and the potential impacts of proposed wells on existing wells in the Township.

Recreation

In Chapter VI, standards for recreation facilities were presented along with an inventory of existing recreation conditions in the Township. Based upon the inventory and analysis of existing park and recreation facilities and programs, the following recommendations are offered.

Cooperation of Agencies

Cooperation between governmental and non-governmental entities should be expanded to allow the opportunity for increased recreation programs and services. Churches, Township buildings and other non-governmental facilities can be utilized to offer classes, instructional programs, youth activities and social events. Joint ventures with Atglen Borough and Parkesburg Borough should be considered to more effectively utilize limited resources. (Currently, facilities in Atglen are limited, but Parkesburg contains facilities for baseball, tennis, basketball, soccer, football, picnicking and playground activities).

On the Community Facilities Plan, "Church and Recreation" are designated at the Community Church in Lenover and the Catholic Church between Strasburg and Cemetery Roads. Cooperation efforts between the Township and the Churches should be made, such as development of recreation fields.

Park and Recreation Committee

The Township should consider expanding the Park and Recreation Committee from its present three members to include interested citizens. The Park and Recreation Committee should monitor the recreation needs of the Township on an on-going basis and identify gaps in serving specific age groups like youths and senior citizens. The Committee could also survey Township residents to determine priorities for facility and program development in the future. The Committee should serve as an advocate of the Township Open Space, Recreation and Environmental Resources Plan to insure it will be a living document within the community. The Committee should make recommendations to the Board of Supervisors for actions necessary to implement that plan and to update the elements of the plan, such as inventories, on an ongoing basis.

Planning Activities

A study should be conducted to determine whether or not a community recreation indoor facility should be constructed at the Township park shown along Moscow Road on the Community Facilities Plan.

The Township should also develop a Recreation Site Plan for Township-owned land off Upper Valley Road. This site is designated "Township Passive Recreation Area" on the Community Facilities Plan. Initial activities would be the preparation of the site plan and grubbing out and cleaning up the site. In the longer term, consideration should be given to developing the site in accordance with the site plan.

The master plan for the Township Park should be revised to reflect the improvements proposed in this plan, such as the exercise course. If a decision is made to acquire additional land at the Township Park and/or develop a community recreation indoor facility, detailed plans for use of the land and/or construction of the facility should be prepared.

Recreation Facilities and Programs

The construction of linear parks along streams within the Township should be considered. Stream corridors shown on the Future Land Use Plan should be preserved as open space by private property owners. The Township can work with the property owners to evaluate developing linear stream paths within the stream corridors in the future. Such parks could be used for passive recreation activities such as fishing, walking and picnicking. Linear stream parks would be consistent with the recommendation of the Open Space, Recreation and Environmental Resources Plan that stream corridors be preserved because of the environmental resources found within the stream corridors.

In the Lancaster County Open Space Plan, the County recommends that a greenway link be established along the abandoned railroad bed of the Atglen-Susquehanna line from Lancaster County to Chester County at least to Atglen. A trail could be established for hiking and walking. The Township should investigate the feasibility of establishing this greenway link through the abandoned railway bed in the southwest corner of the Township.

The Community Facilities Plan shows a "Potential Passive Recreation Area" along Route 372 west of Atglen on over 100 acres currently owned by Conrail. This parcel is bisected by the abandoned railway bed. The Township should investigate the feasibility of acquiring this ground for an eventual passive recreation area used for such activities as fishing and hiking.

The existing Township building and park should be the hub of recreational facilities and programs within the Township. Over the next 5 years the Township should consider providing an exercise course around the perimeter of the baseball field and soccer field, providing additional swings and sandbox facilities and acquiring additional acreage at the park. In the longer term, consideration should be given to providing more parking, another pavilion and restrooms within the park area. Also in the long term, consideration should be given to establishing recreation programs at the Township building and Township park. The Township should continue to allow the building to be used by community organizations.

The Township should determine whether passive recreation facilities, such as picnicking, should be provided at the fire pond along Route 30. Provision of any such facilities would be a long-term project.

Once the open space site off Upper Valley Road is planned and cleaned up, passive recreational facilities such as picnic areas and walking trail should be provided at the site as a long-term project in accordance with the plan prepared for the site.

Dedication and Fee-In-Lieu of Dedication

The Township should consider expanding the requirement for open space or fee in lieu of open space in the Township Subdivision and Land Development Ordinance to include commercial and industrial development. The open space or fee in lieu thereof provision could be used to provide land for recreation purposes, such as linear parks along streams or additional land at the Township Park, and financial resources to provide facilities at the Township park and the site off Upper Valley Road. The Township Solicitor should be consulted prior to any amendment to the ordinance. The ordinance should contain specific assessment methodology for fees.

For developments which contain sensitive lands along creeks within the Township, the Township might find the dedication of land option most attractive. For other developments, the Township may find it more desirable to have a developer pay a fee-in-lieu of land dedication. Each subdivision or land development will have to be reviewed to determine whether the dedication of land or the fee would be more appropriate, based upon the size and location of the development.

Sources of Aid

The Township should also investigate other methods of acquiring and developing parkland. In addition to utilizing Township tax revenues and money from Township bond issues, grants are available from Federal, State and County Governments.

The National Park Service administers the Land and Water Conservation Fund which makes grants of up to 50% of cost available to State and local governments for acquisition and development of lands and waters for conservation and recreation. This program has been administered through the Pennsylvania Department of Community Affairs (DCA).

The Recreational Improvements and Rehabilitation Act Program (RIRA) is also administered by DCA. RIRA grants can be used for projects such as Preparation of Comprehensive Recreation, Park and Open Space Plans; Master Site Development Plan for a park or improvements to a park; Feasibility Study for acquiring or developing a recreation facility; purchase of land for park and recreation facilities; purchase of land for open space purposes; rehabilitation of existing parks and indoor and outdoor recreation facilities; and development of park and recreational facilities. The RIRA program is a matching fund program.

The Chester County Heritage Park and Municipal Grant Program can be used for open space and recreation planning, land acquisition, and park development. The County will reimburse up to 50% of the approved costs to a maximum of \$250,000 for each fee simple property acquisition or easement purchased. Up to 50% of project cost, to a maximum of \$200,000, will be reimbursed for park facility improvement. In addition, there is a \$15,000 non-matching small grant program to assist municipalities with park facility improvements.

The Key 93 program developed by the Commonwealth of Pennsylvania will also be a potential source of aid.

Five Year Capital Program

In the capital improvements program, capital expenditures are separated from operational expenditures. Operational expenditures are those for administration, salaries, maintenance and similar functions, and are short term. Capital expenditures are for assets which have a substantial value compared to the total municipal budget and are expected to provide service for a number of years. The purchase of land or the construction of a building is an example of a capital expenditure.

The capital improvements program schedules the purchase of capital items in a systematic manner rather than allocating a large amount of money for all expenditures in one year. Based on the assessment of future needs, future expenditures are planned so that the Township can anticipate these major expenditures prior to the budget year. The program is based on a plan, such as this Open Space, Recreation and Environmental Resources Plan, which identifies capital needs, goals for capital acquisitions and a priority list of proposed capital expenditures.

A time frame is established for the capital improvements program. Five-year programs are typical. In the first year of the program, capital expenses will be separated from operational expenses and the initial capital expenditures will be scheduled. In each of the four remaining years, additional capital expenditures will be scheduled in light of identified needs, goals and priorities.

Every year the schedule for capital improvements must be revised and updated as necessary, based on the current Township priorities. The Township does have the flexibility to revise priorities from year to year. For each project included in the program, estimated costs must be established and a budget prepared.

The following actions have been recommended for the next five year period:

- Development of Exercise Course around baseball/soccer field at Township Park
- Provision of additional swings and sandbox facilities at Township Park
- Acquisition of additional land at Township Park (12 acres recommended to total 20 acres)
- Preparation of Upper Valley Road site for future improvements

The following table provides a five year projection of very general cost estimates to make additional improvements at the Township Park and to prepare the Upper Valley Road site for future improvements.

It is likely that the Township will, at a minimum, apply for both Chester County Heritage Park Program and RIRA acquisition and park facility development grants for all recommended projects. These programs provide 50% matching funds for both acquisition and park development projects. While each program can be used to "match" funds from the other, the Chester County program currently requires the participating municipality to provide a minimum of 10% of the project costs. The successful pursuit of both grant programs could mean that major projects could cost the Township as little as 10% of the total project costs.

**WEST SADBURY TOWNSHIP
FIVE YEAR CAPITAL PROGRAM**

<u>Park/Facility</u>	<u>Element Cost</u>	<u>Project Cost</u>	<u>Five Year Capital Improvement Plan</u>				
			1994	1995	1996	1997	1999
Township Park		\$256,000					
a. 20 Station Fitness Course	\$14,000		\$14,000				
b. Swings and Sandbox	\$2,500			\$2,500			
c. Acquisition of 12 acres	\$240,000					\$120,000	\$120,000
Upper Valley Road Site		\$7,500					
a. Clearing and Grubbing	\$7,500				\$7,500		
Total	\$264,000	\$264,000	\$14,000	\$2,500	\$7,500	\$120,000	\$120,000

Additional costs would be incurred for surveys, plan preparation, specification preparation, and inspections. Figures would have to be increased by a representative inflation factor in the future.

Beyond 1998, it is anticipated that the following capital projects would be undertaken by the Township:

<u>Park/Facility</u>	<u>Element Cost \$</u>	<u>Project Cost \$</u>
Township Park		76,000
a. Additional Parking Spaces	31,000	
b. Additional Pavilion	25,000	
c. Rest Rooms within Park	20,000	
Upper Valley Road Site		23,000
a. Picnic Area	10,500	
b. Walking Trail	12,500	

Recommendations

To implement the Community Facilities and Services Plan, the following recommendations have been made:

Planning and Regulatory Activities

After completion of the Comprehensive Plan, the Township should review and revise its Zoning Ordinance to implement the proposals in this plan.

The Township should consider the adoption of housing, building and fire codes.

The Subdivision and Land Development Ordinance should be reviewed upon completion of this plan.

Educational Facilities

The Township should keep the School District informed of any proposed development within the Township and monitor existing enrollment and proposed development and enrollment with the School District to identify impacts on school facilities.

Police Protection

The need for additional police protection in the future should be monitored.

Fire Protection

The Township should provide financial support to the fire companies serving the Township as resources permit.

The Township should involve fire company personnel in review of Subdivision and Land Development Plans to secure opinions regarding adequate provision for fire protection capabilities.

The provisions of the Subdivision and Land Development Ordinance as they relate to fire protection should be reviewed.

Library Services

The Township should support the programs of the libraries in the area.

Solid Waste Management

The Township should discuss the desirability of establishing a voluntary program for recycling in the Township.

Stormwater Management

The Township should assure that developers have adequately addressed stormwater management and erosion and sedimentation control.

Sites under development should be monitored and inspected to assure compliance with plans.

The Township should discuss whether groundwater recharge through stormwater infiltration on-site should be pursued where appropriate.

The Township should assure that provision is made for long term ownership and maintenance of stormwater management facilities.

A program which tracks stormwater management facilities should be established, facilities should be periodically inspected for adequacy and necessary improvements should be made by the responsible parties as determined by the Township.

Standards for sedimentation and erosion control measures and practices should be added to the Subdivision and Land Development Ordinance. The regulations governing stormwater management practices should be expanded and strengthened.

Township Administrative Services

The Township should monitor the demands on its municipal building and administrative staff.

Sanitary Sewage Facilities

The Township should complete its update of the Act 537 Plan. The plan for serving areas with sewage disposal should be coordinated with the plan for Future Land Use.

Water Supply

The possibility of serving portions of the Township with public water supply in the future should be investigated.

The Township should encourage land use policies which would not adversely affect the Atglen watershed area.

The high yield aquifer in the southern portion of the Township should be protected as development occurs in the future.

The Township should encourage the use of improved farming practices involving the uses of fertilizer and pesticides and the application of manure. Aggressive control of animal excretions and feedlot management should be encouraged.

Additional means of protecting groundwater resources which should be considered are additional buffer areas adjoining floodplains and wetlands; the preparation of wellhead protection and well interference standards; maintaining a high open space ratio for limestone areas; and allowing only very limited impervious coverage within floodplains.

The Township should consider requiring developers to prepare hydrologic studies which address the adequacy of groundwater supply and the potential impact on the proposed wells and existing wells in the Township.

Recreation

The numerous recreation recommendations contained previously in this chapter should be considered by the Township.

CHAPTER XIII

INTERRELATIONSHIPS AMONG THE PLAN COMPONENTS

RELATIONSHIP OF PLAN TO ADJOINING MUNICIPALITIES AND COUNTY PLAN

Plan Interrelationships

The Future Land Use, Circulation and Community Facilities Plans affect each other. The relationships between the plan components should be recognized and understood, and the plan components coordinated.

The Future Land Use Plan indicates the proposed land uses throughout the Township, such as Agricultural, Rural, Low Density Residential, Medium Density Residential, Stream Corridors, Neighborhood Commercial, General Commercial, Office/Commercial, Industrial and Low Density Cluster. The Circulation Plan classifies roads as to function, indicates necessary road improvements, indicates areas of access management concerns and indicates proposed new road segments. The Community Facilities and Services Plan is concerned with provision of recreation facilities, sewer and water and other utilities and Township planning and regulatory activities.

In preparation of the Land Use Plan, commercial and office development has generally been proposed along major traffic arteries which would have adequate capacity to serve the generated traffic. For instance, Neighborhood Commercial is indicated along Route 30, General Commercial and Office/Commercial indicated near the intersection of Route 30 and Route 10 and Office/Commercial between Route 41 and Gap-Newport Pike. Locating the nonresidential development near the major traffic arteries can also reduce the likelihood of traffic generated by these uses utilizing streets more rural and/or residential in nature.

Much of the more intense future development of the Township is proposed in the vicinity of the intersection of Routes 30 and 10, which can logically be expected to experience development pressure because of its proximity to the terminus of the Route 30 Bypass. A new road segment has been proposed between Route 30 and Leike Road to accommodate future traffic generated by commercial uses.

In the Circulation Plan, roads within the Township are classified as to the function which they perform. Suggested design standards for the different classifications of road are also presented. These standards should be incorporated into the Township's Subdivision and Land Development Ordinance, and applied to new road construction or road improvements when development occurs along existing roads. Utilization of these standards can help assure that roads will be capable of performing the function which they play.

The Circulation Plan also contains recommended access management provisions which should be considered as development occurs along roads in the Township in the future. These measures should be considered as development occurs in accordance with the Future Land Use Plan.

The Community Facilities Plan addresses the need to complete Act 537 planning for the Township (regarding provisions for sanitary sewage disposal facilities within the Township) and the need to investigate the potential for providing public water supply in the Township. Availability of public sewer and water can effect the location of future development and the density and type of future development. If public sewer and water facilities are available, an increased density of development is possible, as well as apartment and townhouse development in addition to single family development.

If public sewer and water were to be provided in the Township, it would be desirable to provide them to areas projected for the most intense development in the Township in the future, the Route 30 and Route 10 area, and the Route 41 and Gap-Newport Pike area. Provision of public sewer and water to areas proposed for agricultural use should be discouraged, as this would place increased development pressure on those areas.

The Township Zoning Ordinance and Zoning Map will be the major tool to implement the Future Land Use Plan. In addition, provisions in the Zoning Ordinance should address preservation of woodland, protection of the limestone area in the southern portion of the Township, protection of historic resources and protection of scenic roads and viewsheds. The Subdivision and Land Development Ordinance should also contain provisions addressing these areas of concern.

The Community Facility Plan also addresses provision of recreation facilities. New or expanded recreation facilities are indicated at the Township Park, Township passive recreation area near Lenover, Township fire pond, the potential passive recreation area west of Atglen and the potential joint recreation ventures with churches in the Township. These recreation facilities will serve the future residents of the Township as well as the existing residents.

Stream Corridors are indicated on the Future Land Use Plan. While the Community Facilities Plan does not map those as recreational resources, it has been noted on the Future Land Use Plan that the Township should work with the owners of the land within Stream Corridors for the potential development of linear parks along the watercourses within the Township.

Relationship to Other Municipalities

On the Future Land Use Plan, land adjoining West Caln Township is designated Rural. Single family development at a density of 2 acres or more per dwelling unit is proposed.

Adjoining land in West Caln Township is zoned Low Density Residential. Agricultural uses, single family detached dwellings on lot sizes ranging from 18,000 square feet to 60,000 square feet depending upon availability of public sewer and water facilities, cluster development, and PRDs at a density of 4 dwelling units per acre are permitted.

Land in West Sadsbury adjoining Sadsbury Township has several land use designations. In the northern portion of the Township land is designated Rural. South of that, land is designated Agricultural. North of Route 30 land is designated Office/Commercial. South of Route 30 land is designated General Commercial. South of Leike Road land is designated Medium Density Residential. Agricultural land is found between the Medium Density Residential and Strasburg Road.

In Sadsbury Township land from the northern Township boundary to just north of Route 30 is zoned Rural Residential. In the Rural Residential District agricultural and single family detached dwelling uses are permitted on 60,000 square foot lots. From just north of Route 30 to Leike Road, land is zoned General Commercial. A wide variety of commercial uses are permitted on 40,000 square foot lots. Land south of Leike Road to the Parkesburg Borough boundary is zoned Rural Residential.

Land in West Sadsbury Township adjoining Parkesburg Borough is designated Semi-public at the church between Strasburg Road and Cemetery Road, Low Density Residential between Cemetery Road and Upper Valley Road, Neighborhood Commercial between Upper Valley Road and the railroad tracks and Industrial for the remainder of the common boundary, except for the Stream Corridor designation along the streams.

Adjoining land is Parkesburg from the Sadsbury Township line to Upper Valley Road is zoned R-2 Residential. In the R-2 District, single family detached dwellings are permitted on lots ranging from 9,000 square feet to 20,000 square feet, depending upon the availability of public sewer and water facilities. Land between Upper Valley Road and the railroad tracks is zoned Commercial. A wide variety of commercial uses are permitted on 12,000 square feet lots. The portion of the Borough which projects into the Township is zoned Industrial. Industrial uses are permitted on 4 acre lots. The land between the projection into the Township and Lower Valley Road is zoned R-2 Residential. The area south of Lower Valley Road is zoned R-1 Residential. Single family detached dwellings are permitted on lots ranging from 15,000 square feet to 30,000 square feet, depending upon the availability of public sewer and water facilities.

Land in West Sadsbury Township adjoining Highland Township is designated Industrial. Adjoining land in Highland Township immediately west of South Limestone Road is zoned Residential. Agriculture, single family detached dwellings, single family semi-detached dwellings, and two family detached dwellings are permitted on 30,000 square foot lots. Land between the Residential Zone and the Industrial Zone in the vicinity of South Lenover Road is zoned Rural Development. In the Rural Development District, agricultural and single family detached dwelling uses are permitted on 2 acre lots. Land on either side of South Lenover Road is zoned Industrial. Industrial uses are permitted on a 25 acre site with 2 acre minimum lot size.

Land in West Sadsbury Township adjoining West Fallowfield Township is designated Industrial east of Atglen Borough and Rural west of Atglen Borough. Adjoining land in West Fallowfield Township is zoned Agriculture Residential. Agriculture and single family detached dwellings are permitted on 10 acre lots.

A number of land use categories are found in the Township surrounding Atglen Borough. To the east, south of the railroad tracks, land is designated Industrial. Between the railroad tracks and Swan Road, land is designated Low Density Residential and Low Density Cluster. Stream Corridor is designated along Officers Run. Land between Officers Run and Route 41 is designated Medium Density Residential. Land between Route 41 and Gap-Newport Pike is designated Office/Commercial. Land south of Gap-Newport Pike is designated Low Density Cluster. Public is indicated at the Conrail land to the west Atglen. South of the railroad tracks to the west of the Borough, land is designated Rural and Stream Corridor.

Land in Atglen from the southeast Borough boundary to just south of the railroad tracks is zoned R-1 Low Density Residential. Agricultural uses, single family detached dwellings and retirement communities are permitted. The lot size for single family detached dwellings ranges from 20,000 square feet to 1 acre, depending upon the availability of public sanitary sewer and water facilities. Land on either side of the railroad tracks, between the R-1 District and just south of Upper Valley Road, is zoned Light Industrial. Land from just south of Upper Valley Road to Swan Road is zoned Conservation. In the Conservation District agricultural and single family detached dwellings at R-1 District standards are permitted, upon review of slope conditions. The northern portion of the Borough, from Swan Road to just north of the railroad tracks, is zoned R-1 Low Density Residential. Land on either side of the railroad tracks is zoned Light Industrial. Land between the railroad tracks and Route 372 is zoned R-3 High Density Residential. In the R-3 District, single family detached dwellings are permitted on 10,000 square foot lots, single family semi-detached dwellings are permitted on 7,500 square foot lots and multiple family dwellings are permitted at 8 dwelling units per acre. A small section along Route 372 is zoned Light Industrial. From the Light Industrial District along the western Borough boundary to Creek Road, land is zoned R-2 Medium Density Residential.

In the R-2 District, single family detached dwellings are permitted on 15,000 square feet lots, single family semi-detached dwellings are permitted on 9,000 square feet lots, multiple family dwellings are permitted at 5 dwelling units per acre and agriculture is permitted. Land south of Creek Road is zoned R-1 Low Density Residential.

There are obviously some differences between the proposed land use categories in West Sadsbury Township and the zoning in surrounding municipalities. Many of these differences are historical. The Township could meet with representatives of adjoining municipalities to discuss issues of consistency of zoning along municipal boundaries.

On the Future Land Use Plan 2010 contained within the Land Use Plan of Chester County, Pennsylvania adopted by Chester County in 1988, the Buck Run, Officers Run, Valley Creek, Pine Creek and Octoraro Creek corridors are identified as Stream Valley Greenways. This is consistent with the designation of watercourses within the Township as Stream Corridors.

On the County Plan, an area west of Parkesburg, generally bounded by Parkesburg on the east, the Valley Creek Corridor on the south, Upper Valley Road on the north and the area of Glen Run on the west is designated Employment Center. This is consistent with the Township's designation of this area as Industrial. The Township's Industrial area, however, is larger, extending from Parkesburg Borough to Atglen Borough between the railroad tracks and the southern Township boundary. The Township has reviewed this area and based on zoning history, current land use, potential for public sewage disposal and situation of land which would be available for residential development, determined to propose industrial use as shown on the Township's Future Land Use Plan.

On the County Plan, small areas of Suburban Development and Activity Areas are shown to the north and west of Atglen Borough. Discussion of the proposed uses for the County Land Use Categories can be found on pages II-2 through II-4 of this report. The Medium Density Residential, Office/Commercial, and Low Density Cluster designations north and northwest of the Borough on the Township's Plan are consistent with the County designation. To the west of the Borough, the Township Plan indicates Public at the potential recreation area and Rural and Stream Corridor southwest of the Borough.

On the County Plan, the area south of Valley Creek and the northwest portion of the Township are designated Rural Development. As noted previously, on the Township Plan the land south of Valley Creek is designated Industrial. The County envisions the Rural Development areas as containing low intensity uses, including agriculture, woodlands, agricultural support businesses, and low density residential uses. This mix of uses is generally proposed by the Township, including Rural, Agricultural and small portions of Neighborhood Commercial and Low Density Residential.

The remainder of the Township is designated Development Reserve on the County Plan. These are areas which the County anticipated as evolving into Suburban Development Areas in the future. A variety of Land Use categories are indicated on the Township Plan, including Office/Commercial, General Commercial, Medium Density Residential, Neighborhood Commercial and Low Density Residential in the Route 30 and Rout 10 area, Agricultural in the Swan Road and Strasburg areas and Low Density Residential, Watershed Protection and Low Density Cluster in the area between Parkesburg and Atglen Boroughs, the railroad tracks and Church and Cemetery Roads.

The extent of commercial land along Route 30 is greater than proposed by the County Plan. Given the commercial development which has occurred along the length of Route 30, traffic volumes along Route 30, the location at the terminus of the Route 30 By-pass, the relatively small availability of land for commercial development elsewhere in the Township, conflicts which could arise between residential and commercial uses, and the historic commercial zoning, the Township has determined that commercial land use where shown would be more appropriate than residential land use. The Township is concerned about the appearance along Route 30, and appropriate setbacks, landscape requirements and design standards should be applied to development which occurs along Route 30. The Township also recognizes the need to implement the access management recommendations included in this Plan.

CHAPTER XIV

PLAN IMPLEMENTATION

Previous chapters have presented the Future Land Use Plan, Circulation Plan, and Community Facilities and Services Plan. In each of those chapters, means of implementation of the various plan elements were discussed. In this final chapter, the various suggestions for plan implementation are summarized and brought together.

The plans establish the ideal of what the Township wishes to accomplish. To turn that ideal into reality, it is necessary to establish a program of specific policies and actions. The recommended actions are indicated as immediate (first year), short term (years 2 to 5), long term (years 5 to 10) and on-going after adoption of this Comprehensive Plan.

Update Existing Township Zoning Ordinance

Updating the Township Zoning Ordinance text and map should be a first priority immediate action of the Township. Much of the Township is currently zoned Residential, which provides for single family detached development on 1 acre minimum lots with on-site sewage disposal and water supply and a wide range of dwelling types at higher densities if off site disposal and water supply is available.

1. The Township should consider appropriate Zoning Map changes to reflect the more diverse Land Use pattern which is proposed in the Future Land Use Plan.
 - a. The Township should investigate the creation of an Agricultural Zoning District.
 - b. The Township should consider the creation of a Zoning District to correspond to the Rural area, requiring a larger lot size than 1 acre, to help preserve wooded acres and rural areas of the Township.
 - c. The Township should consider the creation of more than one Residential District. Existing areas which have developed for single family development could be zoned for only single family development. Higher densities of residential development, including single family and multiple family development, could be directed to undeveloped areas served by an appropriate road system.
 - d. In those wooded areas which could potentially be served by public sewer and water systems, a District emphasizing clustered development should be considered.

- e. The mapping of nonresidential zoning districts will likely remain similar to existing mapping within the Township.
 - f. Consideration could be given to mapping Stream Corridor protection areas on the Zoning Map and protecting those areas from development.
2. The text of the Zoning Ordinance should be revised to describe each proposed Zoning District and include other provisions necessary to implement this plan.
- a. In the Zoning Districts, appropriate permitted uses should be established and area and bulk regulations created which will accomplish the densities suggested in this Plan.
 - b. The statement of community development objectives within the Zoning Ordinance should be expanded to reflect the goals and objectives in this Plan.
 - c. The Township should consider the creation of an Overlay Limestone Protection District to protect the high yield aquifer in the southern portion of the Township. Factors to consider in this District would be additional performance standards for Industrial and Commercial uses, a high open space ratio, the preparation of wellhead protection and well interference standards, prohibition of activities which could pose a hazard to groundwater resources, establishing review procedures for development and requiring applicants to identify mitigating measures.
 - d. Provisions addressing historic preservation should be included, such as requiring mitigation of adverse effects from new development and requiring Township review of development at and near historic resources. Reuse and conversion of historic structures could be encouraged.
 - e. Consideration should be given to establishing a Scenic Road Overlay District along the scenic roads in the Township and directing dense development away from the scenic roads. Greater setbacks, additional landscaping and standards for siting of buildings could be established.
 - f. Overlays encompassing viewsheds for scenic vistas could be established. Restrictions on building height and placement could be established.
 - g. Consideration should be given to adding Cluster Development provisions in the Residential Zoning Districts. This would permit smaller than normal lots, provided the overall density permitted within the district would be maintained through the permanent preservation of open space. The open space requirement could be used to preserve sensitive environmental, scenic and historic resources.

- h. To facilitate circulation, the Zoning Ordinance should contain proper setbacks from roads, appropriate standards for driveway design, appropriate setbacks for buildings from driveways and streets and provisions controlling access with streets.
- i. Requiring impact statements with zoning amendments should be considered. Such statements would address environmental impact of proposed changes.
- j. The percentage of woodland required to be preserved should be increased.
- k. The resources contained within Stream Corridors now are typically required to be "netted out" during analysis of potential subdivisions, to determine the land which may be built upon. The practice of "netting out" the water resources should continue, with consideration of sufficient buffers adjoining the resources.

Update Existing Subdivision and Land Development Ordinance

Revisions should be made to the Township Subdivision and Land Development Ordinance in the short term. While important, the revisions to the Subdivision and Land Development Ordinance would not be as crucial as those to the Zoning Ordinance to implement this plan and revision of the Subdivision and Land Development Ordinance should follow update of the Township Zoning Ordinance.

1. Text revisions to the Subdivision and Land Development Ordinance should include:
 - a. Requiring developers to identify the resources within their tracts, analyze the impacts of the development and mitigate those impacts.

Plan data requirements should be expanded to include a specific listing of environmental, scenic, historic and cultural resources.

Environmental assessment studies, hydrogeological studies, scenic, historic and cultural resources impact studies and plans for preservation of environmental, historic and cultural resources could be required.
 - b. Development guidelines should be established for development in areas of the high yield aquifer.
 - c. Development guidelines should be established for development near scenic roads and vistas.

- d. Consideration should be given to adding provisions for protection of vegetation during site work, adding standards for sedimentation and erosion control measures and practice and expanding and strengthening regulations governing stormwater management practices.
- e. In review of Subdivision and Land Development Plans, requirements for setting aside open space could be used to preserve the Stream Corridors identified in this plan.
- f. Appropriate road design standards for each functional classification of road should be established in the Subdivision and Land Development Ordinance. Such standards are included in the Circulation Plan.
- g. Traffic impact studies should be required for proposed developments. Such studies would require analysis of existing circulation conditions, the impact of proposed development and resulting circulation conditions and the need for traffic improvements to adequately support the development. A traffic impact checklist is included in the Circulation Plan.
- h. Subdivision and Land Development Plans should be reviewed for access management concerns and the Ordinance should contain appropriate design standards for access management. In the Circulation Plan, suggested access restrictions by functional classification of roads are presented along with additional means of access management.
- i. The provisions of the Subdivision and Land Development Ordinance as they relate to fire protection should be reviewed, to determine whether any revisions are necessary. Construction debris should be removed from development sites. Adequate standards should be provided for access by fire vehicles. Developers should be required to address, as appropriate, means of providing a water supply for fire protection either through community or public distribution systems and fire hydrants or fire ponds or other sources. As development occurs, road names should be reviewed with providers of emergency services to avoid confusion during times of emergency, thus delaying response time.
- j. The Township should consider expanding the requirement for open space or fee in lieu of open space in the Township Subdivision and Land Development Ordinance to include commercial and industrial development.

Each subdivision or land development will have to be reviewed to determine whether the dedication of land or the fee would be more appropriate, based upon the size and location of the development.

Adoption of Additional Codes

The Township should consider the adoption of Building, Housing and Fire Codes in the short term in order to improve and protect the character of development in the Township. These codes could be addressed after update of the Township's Zoning Ordinance and Subdivision and Land Development Ordinance.

Continued Planning Activities

1. The Township should continue its update of its Act 537 Plan as an immediate action. The Act 537 Plan should be coordinated with the Future Land Use Plan.
2. This Comprehensive Plan should be given a thorough review in five years, with consideration of trends at that time and development events over those five years. As necessary, the Plan should be updated as a long term activity.
3. Each year the Township Planning Commission and Board of Supervisors should meet to discuss trends in the Township, surrounding municipalities and the region; progress of meeting the goals set forth in this plan; the effectiveness of this plan; and implementation of the plan. Specific actions determined to be necessary to implement the plan should be identified and action programs for the following year established.
4. Recreation planning activities should continue.
 - a. A study should be conducted to determine whether or not a community recreation indoor facility should be constructed at the Township Park. This should be a short-term activity.
 - b. The Township should develop a Recreation Site Plan for Township-owned land off of Upper Valley Road. This should be a short-term activity. In the longer term, consideration should be given to developing the site in accordance with the Site Plan.
 - c. The Master Plan for the Township Park should be revised to affect the improvements proposed in this plan. This would be a short-term activity. If a decision is made to acquire additional land at the Township Park and/or develop a community recreation indoor facility, detailed plans for the use of the land and/or construction of the facilities should be prepared as a long term activity.

- d. The Township should consider working with PennDOT and the County to develop an Access Management Plan for the Township which identifies potential areas for future access points and provides examples of improved access designs. This should be a short-term action.
- e. The Township should participate in regional land use and transportation planning efforts and maintain a dialog with adjoining municipalities concerning issues of mutual concern. This should be an on-going activity.
- f. In the short-term, the Township should prepare a program for, or approach to, the accomplishment of proposed road improvements identified in the Circulation Plan.

The Township should investigate transportation funding opportunities for road projects to be undertaken.

Administrative Actions of Township Supervisors

1. On an on-going basis, the Township should work with the property owners along Stream Corridors to evaluate developing linear stream parks within the Stream Corridors.

During review of Subdivision Plans, when open space is provided within subdivisions and land developments, such open space could be provided along Stream Corridors. This would be an on-going consideration of the Township.

2. The Township should encourage the continuation of agricultural activities in the Township. The Township should work with private property owners on an on-going basis.
 - a. The Township should formally establish the Agricultural Security Area as an immediate action. Once it is formed, the Township should work with farmers to expand the area on an on-going basis.
 - b. The Township should discuss with farmers other programs which exist for preserving farms, such as the Chester County Agricultural Conservation Easement Program and reduced assessed value under Act 515. This should be a short-term activity.
 - c. The Township should discuss with property owners whether there is interest in a transfer of development rights program. This should be a short-term activity.

3. On an on-going basis, during the review of Subdivision and Land Development Plans, and also as a general practice, the Township should promote coordinated access management programs and encourage integrated development providing for controlled and limited access along roads within the Township.
4. The Township should consider pursuing the creation of an Historic District in the Lenover area as a short-term action. Owners of Historic resources should be encouraged to pursue obtaining National Register of Historic Places listing for their properties on an on-going basis.
5. The Township should also consider creating a Township Historical Commission as a short-term activity.
6. The Township should pursue discussions with land owners of identified natural resources regarding potential usage of conservation easements to preserve those resources, on an on-going basis.
7. The Township should keep the School District informed of any proposed developments within the Township and monitor the existing enrollment and proposed development and proposed additional enrollment with the School District to identify impacts on school facilities. This should be done on an on-going basis.
8. The Township should continue to monitor the adequacy of police service as an on-going activity.
9. As resources permit, the Township should provide support to the Parkesburg Fire Company and Atglen Volunteer Fire Company on an on-going basis.
10. The Township should consider involving fire company personnel in review of Subdivision and Land Development plans, to secure opinions regarding adequate provision for fire protection capabilities on an on-going basis.
11. The Township should support the programs of libraries in the area on an on-going basis.
12. The Township should discuss the desirability of establishing a voluntary recycling program in the Township as a short-term activity.
13. The Township should assure that developers adequately address stormwater management and erosion and sedimentation control. In addition to exercising care in reviewing plans, the sites should be monitored and inspected to assure compliance with plans. This should be an on-going activity.

The Township should also assure that provision is made for long term ownership and maintenance of stormwater management facilities on an on-going basis. A program which tracks stormwater management facilities should be established in the short-term. Facilities should be periodically inspected for adequacy and necessary improvements should be made by the responsible parties on an on-going basis.

14. The Township should monitor needs and demands for administrative services in the future and determine needs for Township staffing and physical facilities as an on-going activity.
15. Development within the vicinity of the Atglen watershed should be closely monitored as an on-going activity, so that runoff, sedimentation and erosion will not affect the watershed.
16. The Township should consider encouraging stormwater management systems that utilize groundwater recharge on an on-going basis.
17. The Township should encourage the use of improved farming practices involving the uses of fertilizer and pesticides in the application of manure. Aggressive control of animal excretions and feed lot management should be encouraged. This activity should be on-going.
18. Cooperation between governmental and nongovernmental entities should be expanded to allow the opportunity for increased recreation programs and services. This activity should be on-going.
19. Joint ventures with Atglen Borough and Parkesburg Borough should be considered in the long term to more effectively utilize limited resources for recreation.
20. The Townships should consider expanding the Park and Recreation Committee from its present 3 members to include interested citizens in the short-term.
 - a. The Park and Recreation Committee should monitor the recreation needs of the Township on an on-going basis and identify gaps in serving specific age groups.
 - b. The Committee should consider surveying Township residents in the short-term to determine priorities for facility and program development in the future.
 - c. The Committee should serve as an advocate of the Township Open Space, Recreation and Environmental Resources Plan on an on-going basis.

- d. The Committee should make recommendations to the Supervisors for actions necessary to implement the Open Space, Recreation, and Environmental Resources Plan and to update the elements of the plan on an on-going basis.
21. The Township should investigate the feasibility of establishing a greenway link along the abandoned railway bed in the southwest corner of the Township. The Township should investigate the feasibility of acquiring the land currently owned by Conrail for use as a potential passive recreation area. These actions should be short-term.
 22. The Township should implement the Five Year Capital Program for recreation improvements. Every year the schedule for capital improvements should be revised and updated as necessary, based on current Township priorities.

The Township should investigate obtaining grants to help fund the recreation projects on an on-going basis.
 23. The Township should consider establishing recreation programs at the Township building and Township park in the long term. The Township should consider allowing the building to be used by community organizations on an on-going basis.
 24. The Township could create a Board of Historic Architecture Review in the long term, which could regulate actions taken within the Historic District if such a District were certified by the Pennsylvania Historic and Museum Commission.