

CHAPTER 12

EXISTING LAND USE

INTRODUCTION

Existing land use patterns have a significant impact on the future land use plan, but also affect circulation within the area and demand for community facilities and services.

The base Existing Land Use Map for the Northern Berks area was supplied by the Berks County Planning Commission. The existing land use mapping for both Boroughs and the Townships was updated by the consultant through windshield survey performed in 2001.

The categories shown on the Existing Land Use Map include Residential Single-Family, Residential 2 to 4 Family, Residential Multi-Family, Residential Mobile Home, Commercial, Industrial, Institutional, Public, Farm, Private Recreation, and Vacant.

The Existing Land Use Map can be used in conjunction with the Agricultural Security Areas, Conservation Easements, and Clean and Green Lands Map, which indicates farmed land. Wooded areas are delineated on the Natural Resources Map. The Agricultural Security Areas, Conservation Easements, and Clean and Green Lands Map and Natural Resources map are particularly helpful in further analyzing the use of the Farm and Public categories on the Existing Land Use Map. The Agricultural Security Areas, Conservation Easements, and Clean and Green Lands Map was provided by the Berks County Planning Commission.

Overall Land Use Pattern

Even though the Northern Berks area has experienced population growth and residential development extending from the Borough of Hamburg, much of the area still remains rural, including substantial portions of Tilden and Windsor Townships and most of Upper Bern and Upper Tulpehocken Townships. Hamburg and Strausstown Boroughs have been developed, primarily for residential purposes, though there are commercial, mixed use, public and industrial areas, and some vacant parcels which could be developed in the future.

In Tilden, Windsor, Upper Bern and Upper Tulpehocken Townships, much of the farm/rural land is in active agricultural production with pasture and cultivated lands interspersed. The largest extent of wooded land is found in the northern extent of the Region, on and near the Blue Mountain.

LAND USE CATEGORIES

Residential Single-Family

Most of the residential parcels within the area are Residential Single-Family. These uses are found throughout the Boroughs of Hamburg and Strausstown. In the Townships, single-family homes are found along Old Route 22 and in subdivisions along Woodland Road, Haas Road, Focht Lane, Bliete Road, Balthaser Road and Schappell Road in Windsor Township. In Tilden Township, single-family homes are located in West Hamburg and the southwest portion of the Township, and stripped along many of the Township roads. In Upper Bern, single-family homes are found primarily in the vicinity of Shartlesville, but also stripped along several Township roads. In Upper Tulpehocken, single family area uses are located adjacent to the Borough of Strausstown, along Route 183, and in small subdivisions scattered through the Township. There are also scattered farm houses and non-farm dwellings in the Townships.

Residential 2 to 4 Family

Residential 2 to 4 Family are mixed with residential single family uses and are not concentrated in one area. They are found primarily in Hamburg Borough, Strausstown Borough and the Village of Shartlesville. In Hamburg Borough, these uses are found along 2nd, 3rd and 4th Streets. In Strausstown, the uses are found along Main Street. In the Village of Shartlesville they are also along Main Street.

Residential Multi-Family

Residential Multi-Family is found primarily in the Borough of Hamburg. These uses are mixed with residential single family and Residential 2 to 4 Family uses. Multi-Family developments are found along Williams Street in the northern portion of the Borough and along Pine Street in the eastern portion of the Borough. Conversions to apartments have occurred in the Boroughs and villages in the region, particularly in larger older homes.

Residential Mobile Home

Residential Mobile Home uses are scattered through the Townships. These uses are usually considered single family homes, but when placed in parks require services associated with higher density development. Small concentrations are found along Tulley Drive and Spring Hill Drive in Upper Tulpehocken Township. A large mobile home park is located south of West Hamburg in Tilden Township.

Commercial

Most non-recreational commercial development in the area is located in Hamburg Borough, in Tilden Township along the Route 61 corridor, in Shartlesville and west of the village, in Strausstown Borough, and in Windsor Township along Route 61 south of Hamburg. Commercial uses are also widely scattered in the region.

Private Recreation

Private Recreation lands are found in Upper Tulpehocken Township in the vicinity of the I-78 and 183 interchange, along Club Road, west of the Northkill Creek and along Northkill Road; in Upper Bern Township northwest of Shartlesville and along Forge Dam and Mountain Roads; in Tilden Township off Walnut Road; and in Windsor Township in the southeastern portion of the Township. The Olivet Blue Mountain Camp is located in Windsor Township near Hamburg. These uses include an amphitheater, sportsman's clubs, campgrounds, and golf courses. Uses are detailed on the Community Facilities Map.

Industrial

Most industrial development has occurred within the Borough of Hamburg, though a number of industrial sites are now vacant. Tilden Township has an industrial park located along Route 61. Industrial parks are found north of Shartlesville in Upper Bern Township and north of Edenburg in Windsor Township. Post Precision Castings is located in the Borough of Strausstown and Upper Tulpehocken Township.

Farm

The Farm areas include lands that are cultivated, pasture and wooded. Farmed areas are specifically shown on the Agricultural Security Areas, Conservation Easements, and Clean and Green Lands Map. Wooded areas are shown on the Natural Resources Map. These areas encompass most of the region. Most of the open land which could accommodate future development under existing zoning is located in Tilden and Windsor Townships. Development of these lands would result in the loss of agricultural lands within those Townships.

Public

Public uses are found throughout the region. They include extensive public lands along the Blue Mountain such as State game lands, the Kernsville Dam, the Hamburg Reservoir and Watershed and the Weiser State Forest. Public lands are found primarily in the northern portion of the region. This category also includes municipal buildings and uses, community parks, post offices and fire companies, the Hamburg Center, Kaercher Creek

Park, and public schools. These uses are scattered throughout the municipalities. Public and Institutional land uses are detailed on the Community Facilities Map.

Institutional

Religious uses predominate in this category. Religious uses include the Christ Evangelical Free Church on Route 183, Zion Blue Mountain Church of Christ on Old Route 22 and the Bernville Mennonite Church on Route 183 in Upper Tulpehocken Township; Frieden's Union Church on Valley Road in Upper Bern Township; St. Michael's Church on St. Michael's Road, Berne United Methodist on Salem Church Road, Hamburg Seventh Day Adventist Church on Old Route 22, St. Mary's Roman Catholic Church on Walnut Road in Tilden Township; Hamburg Bible Church on Mountain Road, First Assembly of God on 4th Street, Bethany United Methodist Church on 3rd Street, St. Mary's Roman Catholic Church on State Street, the Salvation Army on 4th Street, First United Church of Christ on 3rd Street and St. John's Lutheran Church on Pine Street in Hamburg Borough; and Salem Evangelical Congregational Church on Old Route 22 and St. Paul's Evangelical Lutheran Church on Old Route 22 in Windsor Township. The large institutional area in the center of Tilden Township is the Blue Mountain Academy, which includes extensive farmland, a private school, and educational/industrial uses.

Vacant

Vacant parcels are scattered throughout the region. Concentrations of vacant lands exist north of Mountain Road along the Blue Mountain in Upper Tulpehocken, Upper Bern, Tilden and Windsor Townships. Vacant parcels are also scattered throughout farm areas. Development of these lands for residential uses could impact nearby public lands and agricultural lands.

Trends

Several trends in land use are noticeable. The first is the increased level of development of residential housing scattered within the Townships in the Region. Development has occurred in new subdivisions in rural areas utilizing on-site water supply and sewage disposal as well as in areas served by public sewer and water facilities near the Region's existing settlements.

Another trend in the area is the development of industrial and commercial uses along the Route 61 corridor in Tilden Township. This now includes Cabela's, a large nation-wide outdoor retailer. This development adds to the tax base and employment in the Township, however, the impact of this commercial development in the Tilden Township, particularly the development of Cabela's can have an effect on commercial activity and the tax base in the Borough of Hamburg if it competes with, rather than complements,

Borough commercial activity. A trend which has occurred nationwide, and some towns are trying to reverse, is the relocation of businesses which serve the day-to-day needs of residents to shopping areas outside Boroughs and villages.

Agriculture continues to remain the predominant land use, even with the amount of residential development which has occurred. Effective agricultural zoning in Upper Bern, Upper Tulpehocken, and Windsor Townships is intended to retain agriculture as the major land use.

Recreational uses, detailed on the Community Facilities Map, are important in the Region, and will remain so given the advent of Cabela's. The region contains game lands, forests, sportsman clubs, golf courses, campgrounds, an amphitheater, rodeo, and major recreation facilities in Kernsville Dam and Kaercher Creek Park.

Acreages in Each Existing Land Use Category

The table on the following page presents the number of parcels in each land use category (frequency), land use category, and percentage of total land in the Region in that category. The first percentage does not take into account roadways. The second percentage does.

Residential 1 Family has the greatest frequency, 3823. Farm is next, 1030, followed by Vacant, 657. With regard to acreage, by far the most land is in the Farm category, 29,603 acres. Public is next, 13,111. Residential 1 Family, 4469, Vacant, 1779, Private Recreation, 1149, and Institutional, 968, follow.

CHAPTER 13

PUBLIC SANITARY SEWER AND WATER FACILITIES

INTRODUCTION

Public sanitary sewer and water facilities are discussed in a separate chapter from community facilities because availability of sanitary sewer and water facilities plays an extremely important role in the shaping of development patterns, including location and density. One of the major concerns of the Comprehensive planning effort will be to coordinate land use and utility planning so that future land use concentrations would reflect the availability of public sewer and water facilities, while assuring that sewer and water planning in the area would not be at odds with the goals for future land use reflected in the future Land Use Plan. For instance, if areas are proposed for agriculture, it is not desirable to extend the public sewer and water service to those areas.

Public Sanitary Sewer Facilities

The Hamburg area is served by the Hamburg Municipal Authority. The Authority serves the Borough, Edenburg, and along Old Route 22 in-between. Tilden Corporate Center sewage is also treated at the Hamburg plant.

Upper Bern Township has recently constructed a sanitary sewer system in Shartlesville, with a sewage treatment plant along Wolf Creek. The system was designed to serve the Shartlesville area, with little additional capacity. The system is not intended to accommodate residential growth in the Township.

Strausstown Borough intends to construct a sanitary sewer system which will serve the Borough and about 17 homes in Upper Tulpehocken Township. The plant will be located along Jackson Creek in the Township. As was the case with the Shartlesville system, the Strausstown system is designed to address existing problems, and not serve residential growth. Only very limited capacity will be available at the plant.

Sanitary sewers will be expanded within Tilden Township to serve existing development in West Hamburg and expansion of the Pleasant Hills Mobile Home Park. About 700 homes will be served, and generate about 180,000 gallons per day to be treated at the Hamburg Plant. The project will involve upgrading the pump station along Industrial Drive in the Tilden Corporate Center and constructing two new pump stations.

Soil Suitability for On-Site Sewage Disposal

The availability of public sanitary sewer facilities is important, and the use of such facilities should be encouraged when consistent with the future Land Use Plan, because of the general unsuitability of soils in Northern Berks County for on-site sewage disposal. There are a number of soils considered unsuitable for on-site sewage disposal in the region based on United States Department of Agriculture Natural Resources Conservation Service rating of limitations for septic tank absorption fields, when limestone soils are excluded because of the hazard of ground water contamination.

Public Water Supply Facilities

The Hamburg Municipal Authority serves the Borough of Hamburg, Edenburg and the portion of Windsor Township along Old Route 22 in-between. The Hamburg Municipal Authority maintains water storage at the Hamburg Reservoir in Windsor Township. The primary source of supply is an intake on the Furnace Creek. The Authority has wells located in close proximity to the Reservoir on Reservoir Road as a supplementary supply.

Sewer Capacities

As noted above, very limited capacity is or will be available at the Shartlesville and Strausstown plants. Given the addition of treatment of sewage from Tilden Township at the Hamburg plant, requests for additional service outside the Borough would have to be reviewed on a case by case basis by the Borough Authority.

Water Capacities

The Hamburg Municipal Authority will satisfy all domestic demand from within the Borough. The policy over the years has been not to accept demand outside the Borough beyond the present Edenburg service area unless the Hamburg Center needs to use the emergency interconnection. Recently the Municipal Authority has agreed to supply water to the Hamburg Center if approval is secured from the owner of the Center, the Department of Public Welfare. The Center is now served from a system of ponds and a filtration plant on the Center's grounds. The plant has not been functioning properly to remove bacteria.

Berks County Sewer and Water Systems Study

With regard to water, Hamburg Borough and Tilden and Windsor Townships were identified as municipal entities which should seek regional solutions for public water. West Hamburg and Shartlesville were identified as needing to look at short term (2008) water needs. Strausstown Borough and the surrounding Upper Tulpehocken Township areas were identified as needing to look at long term (2018) water needs.

CHAPTER 14

AGRICULTURAL RESOURCES

Introduction

Agricultural resources within the study area of Upper Tulpehocken, Upper Bern, Windsor, Tilden Townships and Strausstown and Hamburg Boroughs are shown on two maps. The first map identifies all prime agricultural soils within the study area. The second shows Agricultural Resources, including Agricultural Security Areas, Conservation Easements, Clean and Green Lands, and areas that are actively farmed. Due to the limited size and available lands within the two Boroughs (Hamburg and Strausstown) in the study area and their developed nature, this discussion only pertains to the four townships (Upper Bern, Windsor, Tilden, and Upper Tulpehocken).

Agricultural Resources in The Region

Prime Agricultural Soils

On the Prime Agricultural Soils Map, areas containing prime agricultural soils, shown in green, cover most of the southern portion of the Region. Prime Agricultural Soils are soils in Capability Classes 1, 2 or 3 as identified by the United States Department of Agriculture Natural Resources Conservation Service. Prime agricultural land is often easily developable land, and without protection, prime agricultural soils in the Townships are subject to development. The Agricultural Security Areas, Conservation Easements and Clean and Green Lands Map is also included in this chapter. That map describes man-made efforts to preserve productive soils within the Region.

Agricultural Security Areas, Conservation Easements and Clean and Green Lands Map

Many areas within the Region are designated as Agricultural Security Areas. These areas are shown as yellow hatching on the map. This is the first step to getting lands preserved through the conservation easement program administered by Berks County. Agricultural Security Areas are properties which owners voluntarily enroll in an agricultural security program created by a municipality. The enrollment in an Agricultural Security Area typically demonstrates a commitment to keeping a property in agricultural use and affords some protection for agricultural properties, but does not prevent development of the Agricultural Security areas. Property owners may leave the program and develop their land. Some protection is afforded to properties in Agricultural Security Areas. AGRICULTURAL AREA SECURITY LAW, Act of 1981, P.L. 128, No. 43: (As Amended), Section 10 (a)(b) prohibits local government units from enacting nuisance

regulations; Section 13 (a)(b) address the use of eminent domain by government units; and Section 14.1 (2)(i) requires inclusion in an Agricultural Security Area for easement purchase. Section 14.1 (5)(c)(1) provides for all agricultural conservation easement to be perpetual. Hazardous waste sites may not be located in any municipality that has an established Agricultural Security Area. All of the Townships within the study area have established Agricultural Security Areas, and these areas comprise significant portions of the Townships.

Agricultural Easements

Agricultural Easements are displayed on this map in blue stripes (hatching pattern). These easements are purchased through State and County funding sources. This program has very specific guidelines which apply to each parcel under consideration. One stipulation is that the parcel(s) have to be located within an established Agricultural Security Area. Once the County accepts a parcel, and a purchase price of the development rights is agreed upon, the development rights are sold. The land(s) can remain cultivated for profit and can be sold for agricultural purposes, and it is guaranteed that the land will be preserved as farmland and/or open space forever. Windsor, Tilden, and Upper Tulpehocken Townships all have land that cannot be developed because the development rights have been sold through this program. Upper Bern Township currently does not have any conservation easements purchased within the Township.

Clean and Green Lands

Clean and Green Lands are shown in green hatching. The Clean and Green program is another State funded program that provides a tax break to farmers who enroll in this program by taxing land at its current use value rather than market value. Once a farmer enrolls, there is a certain amount of acceptable (per program regulations) land development or subdivision activity that can occur on the property. The program does allow minor subdivisions over a period of time, however; if any activity over the program's allowable acreage is disturbed, back taxes have to be paid for all the years enrolled in the program. This hopefully encourages farmers to keep farming on their land(s) by providing a tax incentive to continue to do so, but does not prevent developers to come in and offer to buy up irreplaceable prime farmland for residential, commercial and/or industrial land developments/subdivisions. This is a voluntary program, and 10 acres is the minimum amount of contiguous acres allowed to receive benefits of this program.

Farmed Areas

Large portions of the Townships in the Northern Berks Region south of the Blue Mountain are actively farmed. These areas are shown in green on the map. Agriculture is the major land use and a significant part of the economy in the region.

Questionnaire Responses

Twenty (20) out of 27 responses to the Northern Berks Region Planning Questionnaire strongly agreed that farmland should stay in agricultural use within the Townships. Four (4) agreed, two (2) disagreed and one (1) had no opinion. When the questionnaire asked why respondents felt agricultural land should be preserved for farming, two (2) responded that they actually live on a farm, twenty (20) responded that they want farmland available for future generations to farm, three (3) liked to view farmland, and thirteen (13) wanted to limit development that occurs in the community. Written-in responses were as follows: Want to buy food from local farmers; need agricultural land for conservation purposes; when soil is taken for development, we lose part of our soul; hunt on farmland; Townships should allow development where not practical or sensible for agricultural use; preserve agricultural industry to which many other businesses are related; and land away from interstate should be used for farming.

Finally, after reading the four statements given in the questionnaire, the residents were to choose the one that best described their feelings concerning farmland use. One (1) agreed that farmland should be converted whenever market conditions demanded, six (6) thought farmland should be converted ONLY when public water and sewer are available; three (3) thought farmland should be converted ONLY when density is limited to 1 house per 20 acres; and seventeen (17) thought farmland should NOT be converted to other uses.

Goal and Objectives for Farmland Preservation for the Region

The goal of this plan is to preserve farmland for future generations to farm, view, see, and enjoy as generations in the Region have done for over two hundred years. Programs should be encouraged and continued so that preservation of farming, and not just the preservation of farmland, occurs in order to also preserve the quality of life and rural character deemed so valuable to residents in this area. Continuation of farming can help to slow upward pressure on taxes and is viable open space for the community. Programs should preserve the best farmland and support efforts of farmers to see that these lands can be gainfully farmed and maintained. Agricultural lands can continue to be productive and benefit the area as a major industry and component of its economy and culture.

In the statement of Goals and Objectives in this Plan, the goal for the Northern Berks Region concerning agricultural resources is to preserve and encourage continuation of agricultural uses in the Region.

The objectives to reach this goal determined through the joint comprehensive planning effort are as follows:

- Promote the preservation of agricultural areas within the Townships through conservation development, agricultural security areas, purchase and donation of development rights, and conservation easements, and increase the number of farms so protected.
- Continue and consider opportunities for expansion of effective agricultural zoning in the Townships.
- Encourage cooperative municipal efforts to address agricultural issues such as: support for the continuation of family farms, regulation of intensive agricultural activities, and relief of tax pressures on farmers because of land values.
- Encourage safe agricultural practices.
- Establish policies regarding public sewer and water and other infrastructure improvements that do not encourage development pressure on designated agricultural areas.
- Minimize adverse impacts on agricultural uses from non-agricultural uses around the perimeter of designated agricultural areas.

Importance of Agricultural Resources in the Area

Most Townships face increasing tax burdens, particularly school taxes. Land use policies within Townships can affect the taxes of Township residents because those policies influence land use patterns, the number of people moving into the Township, the number of school children, and thus, school taxes.

In the study *Fiscal Impacts of Different Land Uses*, prepared by the Penn State College of Agricultural Sciences and the Cooperative Extension, it was found that residential development in general does not pay for itself. Residential development increases costs more than it increases tax revenue, and other land uses must help subsidize school expenses. Current residents may end up paying higher taxes to cover the costs associated with new residents moving into the Township. Farmland and open land provided more in tax revenue than they required back in expenditures, and can help keep residents' taxes low, even if the Clean and Green program reduces the real estate tax paid by farmers.

Another report which looked at the relationship of land use and cost to residents is *The Cost of Sprawl in Pennsylvania*, prepared for 10,000 Friends of Pennsylvania. Sprawl is the pattern of low density, scattered development requiring travel by motor vehicle, typically consuming agricultural land and segregating residential uses from other types of

land use. Townships in the Region have experienced sprawl and could continue to do so in the future without appropriate land use policies.

The costs, which were found to result from the sprawl, are increases in costs of roads, schools, utilities, and transportation, increases in air pollution and water pollution, and consumption of agricultural lands, natural areas and open space. Sprawl affects the quality of life in rural areas and results in direct costs such as higher school taxes.

As additional residential development occurs, the loss of farmland diminishes a major component of the economy of Northern Berks County. When agricultural operations are continued, they help maintain local agricultural supplies, make it easier for remaining farmers to continue to farm, maintain a cultural heritage and lifestyle of the region, and help maintain open space, rural character and the beauty of the landscape.

Agricultural Zoning in the Municipalities

Successful effective Agricultural Zoning is now in place in Upper Bern, Upper Tulpehocken, and Windsor Townships, which have large areas south of the Blue Mountain under effective agricultural zoning. Agricultural zones are the largest zones in Upper Bern and Upper Tulpehocken Townships and a major category in Windsor Township. Effective agricultural zoning allows agricultural uses and those uses compatible with farming, strongly limits dwellings and discourages subdivision of farms into parcels smaller than can typically be farmed.

Effective Agricultural zoning has been adopted in other municipalities in northern Berks County, including adjoining land in Bethel, Centre, and Jefferson Townships. Centre Township has implemented a purchase of agricultural easements programs on its own because the County program was not preserving farms in the Township. Tilden Township does not have effective agricultural zoning, which is found in Upper Bern Township along Tilden Township's common boundary with Upper Bern Township, south of Mountain Road.

One of the issues facing Tilden Township is whether some of the land in the Township should be designated Agricultural Preservation in order to provide for coordinated land use along municipal boundaries, support the agricultural preservation activities in other Townships, encourage the viability of agriculture and support farm related businesses. This does not mean that Tilden Township would have to institute effective agricultural preservation zoning. It could support agriculture through a number of administrative means. At some time in the future the Township could decide if it is appropriate to enact effective agricultural when and where there is support for it.

Agricultural preservation activities can keep large areas relatively free of non-farm development, lessening conflicts with farming operations which result from increased

traffic, litter, complaints and damage to crops. They can also assure a supply of agricultural land for rental by farmers and protects the investment that is made in purchase of agricultural easements. Agricultural preservation protects natural systems, helps replenish groundwater and maintain stream flow, and conserves prime agricultural soils that are a resource that once lost, cannot be recovered.

Although there are no longer large contiguous lots of farmland that spread throughout the region that are actively cultivated, the presence of the remaining parcels adds rural character to the township as well as valuable open space and woodlands. The cultivated farms also help preserve historic resources, as this area was once a thriving agricultural community.

Administrative Means For Agricultural Preservation

As noted above, Effective Agricultural Zoning is just one means of preserving existing agricultural activities in the Region. The following are examples of administrative and supplemental zoning techniques to encourage and protect agriculture:

- Work with local farmers to ensure participation in County's Purchase of Agricultural Conservation Easements Program
- Establish Township Purchase of Agricultural Conservation Easements Program, such as that implemented in Centre Township.
- Establish Transfer of Development Program within a municipality or across municipal boundaries (development rights of properties in agricultural areas could be transferred to properties in those areas designated as residential growth areas).
- Promote the inclusion of farms in Agricultural Security Areas.
- Support measures to relieve property tax burden for farmers
- Limit extension of public sewer and water facilities to agricultural areas
- Permit businesses which support agricultural operations, such as farm equipment sales and service, farm supply stores, and businesses which market or process farm products
- Allow farmers to supplement incomes through home businesses, home occupations and farm related businesses
- Permit appropriate recreational activities, such as hayrides, corn mazes, and festivals.

- Limit non-farm uses which could cause conflicts with agricultural practices and/or require buffers for non-farm uses around the perimeter of farms. Direct any non-farm development to parcels least suited to farming.
- Allow conservation development (Growing Greener) as an option (typically 50 to 80% of the tract remains in open space and development occurs on the remaining land, allowing for the protection of some farmland)
- Promote enrollment in Clean and Green tax relief program
- Allow and give incentives to compact development and higher densities where public sewer and water are available in areas designated for development, and give disincentives to inefficient development techniques
- Support establishment and continuation of farm-related programs and organizations
- Discourage construction of roads through and interchanges within agricultural areas
- Limit expansion of small rural villages into surrounding agricultural areas
- Work to improve relationships between farmers and non-farm neighbors.
- Make information available on the Pennsylvania agricultural loan program which permits farmers to borrow funds for land, buildings, machinery, or equipment bought, built or renovated for the benefit of the business.
- Encourage farmers to utilize the Pennsylvania Farm Link program created by the Center for Rural Pennsylvania. This program is designed to help match farmers planning for retirement, and other interested landowners, with farmers hoping to work into farm ownership on long-term leasing.

Alternatives to “Traditional Agriculture”

Often agriculture has been equated with “traditional” methods such as dairy farming, raising of steers, and cultivating such crops as corn, hay, wheat, alfalfa, soy beans, barley, and oats. Increasingly, there a number of alternatives which can be practiced to supplement farm income or utilize smaller parcels of land, including:

- Nursery/Greenhouse

- Horse Farm
- Equestrian Center
- Orchard
- Winery
- Christmas Tree Farm
- Pick-Your-Own Operation
- Contracting Organic Farm
- Herb Farm
- Wildflower/Flower Farm
- “Gentleman’s” Farm
- “Agritainment” (using crafts, corn mazes, petting zoos, entertainers, hay tunnels, and hayrides to generate income and attract purchase of produce).
- Deer Farm
- Meat Goats
- Hydroponics
- Ornamental Crops

CHAPTER 15

NATURAL FEATURES

INTRODUCTION

Three maps showing natural resources have been prepared for this Plan. The first is a composite map showing natural resources including streams, wetlands, hydric soils (which are potential wetlands), 100-year floodplains; wooded areas; and areas of steep slope, including slopes of 15% - 25% and slopes greater than 25%. The second map shows water related features, including: streams, floodplains, wetlands, hydric soils, and watersheds, which are listed by watershed name. The third composite map shows historic properties and significant natural areas throughout the Region listed numerically. This map has an associated spreadsheet that defines what each number represents on the map.

The Blue Mountain

Heavily wooded areas, very steep slopes, and stony and bouldery areas along the northern tier of the Region, the Blue Mountain, are not conducive for development. The Blue Mountain contains a number of significant natural areas listed in the Berks County Natural Areas Inventory and is the headwater area of streams. Areas on the mountain that now preclude land development are the extensive State Game lands and the Weiser State Forest. The Mountain is a key natural resource in Northern Berks and beyond the Region, and a goal of this plan is to preserve the Blue Mountain and its resources.

The Commonwealth of Pennsylvania, Berks County, the Berks and Wildlands Conservancies, and municipalities containing land on the Mountain should work together to protect the Mountain through land purchase, purchase of conservation easements, and zoning practices. Large scale logging operations should not occur and appropriate sediment and erosion control measures must be utilized for any land disturbance which occurs. The Blue Mountain contains the largest continuous forest in Berks County. It is an attractive setting for recreation such as hunting, fishing and camping and provides a key habitat for wildlife.

FLOODPLAINS

One hundred-year floodplains are shown from Federal Emergency Management Agency (FEMA) Maps. Detailed studies have not been performed to establish, through calculation, the extent of the 100-year floodplains for all watercourses. Any development proposed in the vicinity of watercourses by developers would require a calculated study

of the 100-year floodplain by the developer if such detailed studies have not been performed by FEMA.

Floodplains are areas adjacent to watercourses which are covered by floodwater 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 danger to persons and property. If development occurs within the floodplain, this may constrict the area over which floodwaters 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 occur.

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 streambeds can occur, which could cause floodwaters 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 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 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 area are generally found along the watercourses such as the Schuylkill River, streams and in areas identified as hydric soils. 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 cannot 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 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. These areas store water which can replenish groundwater and surface water supplies.

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.

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

HYDRIC SOILS

The hydric soils have been mapped from soils information provided by United States Department of Agriculture Natural Resources Conservation Service and indicate areas of potential wetlands. Hydric soils 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, and are generally found in the vicinity of the watercourses within the Region. There also are several isolated areas of hydric soil, also within the study area, as displayed on the Water Related Features Map.

The hydric soils should be preserved and serious consideration should be taken to limit development on hydric soils. Hydric soils can act like a sponge when floodwaters rise, and when coupled with established wetlands, can filter nutrients and pollutants to protect the surface and ground water.

STEEP SLOPES

Areas that 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, and 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, especially on the Blue Mountain located in the Northern portion of the Region and in various other places, as shown on the Natural Resources Map.

WOODED AREAS

Wooded areas are concentrated within the State Forests and game lands located on Blue Mountain in the northern most part of the Region. The wooded areas on the mountain should be preserved as a valuable resource for the preservation of the steep slopes and to minimize the erosion, mud or land slides that may occur if disturbed by heavy clear cutting or extensive development.

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 Region, 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.

Wooded areas also have recreational potential, recognized when the State established the State Forest in Windsor Township and the various State Game lands in the Region, particularly on Blue Mountain. Preserving wooded areas benefits Northern Berks residents and visitors to the Region when within public recreational facilities. The Appalachian Trail, as well as other trails, is located on the Blue Mountain.

ROLE IN OPEN SPACE SYSTEM

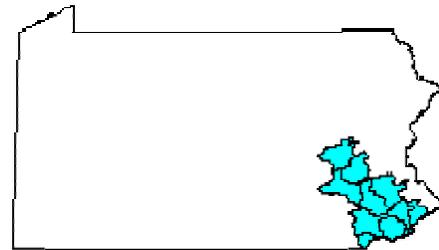
Stream valleys, the Blue Mountain, farmland, and woodlands in the Region constitute background open space, which is seen and perceived by residents of the entire area. The preservation of these resources is very important because they help create the image of Northern Berks as a pleasant, rural community. As development occurs in the Region in the future, if this background open space is not preserved, the remaining rural character of the Region will be lost.

Tulpehocken Creek Studies

Portions of Upper Bern and Upper Tulpehocken Townships and Strausstown Borough are in the Tulpehocken Creek Watershed. The Forest Resources Report for the Tulpehocken Creek Watershed and Tulpehocken Creek Watershed Protection Plan and Environmental Assessment include proposals for improving water quality and protecting and enhancing natural resources in the watershed. Major recommendations of these reports are the use of riparian forest buffers along the watercourses in the watershed; use of Best Management Practices in urban development, agriculture, and forestry; voluntary conservation easements; and stream habitat improvement, including wetland restoration and stream bank restoration/stabilization.

STREAMS AND WATERSHEDS

The watersheds and streams in the region are shown on the Water Related Features map. Some of the natural functions of watercourses and the area surrounding the watercourses have been discussed above. It is also important to note that streams provide a recreational resource, particularly fishing.



DEP Watershed website map

The watersheds shown on the Water Related Features Map, with the exception of one, drain into the Schuylkill River Watershed, which drains into the Delaware Basin. The Delaware River Basin has a total drainage area of 2,708 square miles. Known as the Lower Delaware Subbasin, it includes the drainage area of the Schuylkill River and several nearby streams. The subbasin encompasses all of Philadelphia and Delaware Counties, most of Chester, Montgomery, and Berks Counties, and portions of Schuylkill, Carbon, Lehigh, Bucks, Lancaster, and Lebanon Counties. The Little Swatara Creek is in the Susquehanna River Basin.

PA DEP has established designated water uses for waterways within the Commonwealth. The classifications for the watersheds found in Northern Berks are as follows:

<u>Stream</u>	<u>Zone</u>	<u>Water Uses Protected</u>
Rattling Run	Basin, Source to Route 9	EV
Mill Creek	Basin	TSF
Pigeon Creek	Basin	WWF

<u>Stream</u>	<u>Zone</u>	<u>Water Uses Protected</u>
Maiden Creek	Main Stem, Pine Creek to Moselem Creek	TSF
Pine Creek	Basin, Source to Farthest downstream crossing of T-803	HQ-CWF
Unnamed Tributaries to Maiden Creek	Basins, Pine Creek to Moselem Creek	TSF
Furnace Creek	Basin	TSF
Northkill Creek	Basin, Source to I-78 Bridge	EV
	Basin, I-78 Bridge to Mouth (Wolf Creek, Little Northkill Creek, Birch Creek, Mollhead Creek, Jackson Creek)	CWF
Spring Creek	Basin, Source to Furnace Creek	CWF
Plum Creek	Basin, Source to unnamed tributary at Rm 0.45	WWF
Trout Creek		TSF
Little Schuylkill River		TSF
Little Swatara Creek	Basin, Source to Berks-Lebanon County Border	CWF

The Water Use Protected symbols mean the following:

Special Protection

<u>Symbol</u>	<u>Protected Use</u>
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HQ	<i>High Quality Waters</i> – A stream or watershed which has excellent quality waters and environmental or other features that require special water quality protection.
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EV	<i>Exceptional Value Waters</i> – A stream or watershed which constitutes an outstanding national, State, regional or local resource, such as waters of national, State or county parks or forests, or waters which are used as a source of unfiltered potable water supply, or waters of wildlife refuges or State game lands, or waters which have been characterized by the Fish Commission as “Wilderness Trout Streams”, and other waters of substantial recreational or ecological significance.
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Aquatic Life

<u>Symbol</u>	<u>Protected Use</u>
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CWF	<i>Cold Water Fishes</i> – Maintenance and/or propagation of fish species including the family Salmonidae and additional flora and fauna which are indigenous to a cold water habitat.
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WWF	<i>Warm Water Fishes</i> – Maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.
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MF	<i>Migratory Fishes</i> – Passage, maintenance and propagation of anadromous and catadromous fishes and other fishes which ascent to flowing waters to complete their life cycle.
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TSF	<i>Trout Stocking</i> – Maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.
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Special Protection Waters, High Quality and Exceptional Value, are required to be maintained at their existing quality; however, High Quality water can be degraded if certain social and economic justifications are met. Streams that are classified as High Quality have additional requirements for potential discharges listed in the Rules and Regulations of the Pennsylvania Department of Environmental Protection. PA DEP requires that a proposed point source discharge to High Quality Waters must show that the discharge is justified for necessary economic or social development which is of

significant public value and that the proposed discharge alone or in combination with other discharges will not affect the protected use criteria. A proposed discharger must prove that the best available land disposal and reuse technologies are not feasible for economic environmental reasons.

Natural Areas of Special Interest

The following Natural Areas inventory sites are found in the Northern Berks Region:

SA516 in the Blue Mountain area of Upper Tulpehocken Township –	Location of a good population of moth that is both globally and state imperiled
SA512, SA515, and SA517 in the Blue Mountain area of Upper Tulpehocken Township	SA512 contains population of a moth imperiled at the state level, on State land. SA515 and SA517 are butterfly habitats
Weiser State Forest on the Blue Mountain	Provides a haven and corridor for wildlife
State Game Lands 106 and 110 on the Blue Mountain	Provides a haven and corridor for wildlife
The Appalachian Trail through the Blue Mountain	Important national recreation resource
NC 520 the Northkill Creek along the Upper Bern Township – Upper Tulpehocken Township Boundary	The Northkill Creek from its source to the I-78 bridge is a High-gradient clear water creek community and designated as an Exceptional Value Stream by PADEP
GE 516 – Outstanding example of a water gap where the Schuylkill River cuts through the Blue Mountain exposing the underlying quartzite	
Kaercher Creek Park – Provides recreation, fishing and open space for County residents. Water quality should be protected and improved through the protection of the entire Kaercher Creek watershed.	

Blue Mountain – Dominates the landscape, marks the boundary between the Appalachian Mountain and Great Valley sections of the Valley and Ridge province. One of the most important areas in Berks County for the preservation of wildlife habitat, especially for species that require large unbroken tracts of land. Many tracts of land are still in need of protection agreements.

Bloody Spring Meadow in Upper Tulpehocken Township

A one to two acre meadow dissected by a small braided stream. A single individual of a PA Endangered animal species was found at the site in 1996.

The Berks County Conservancy published Preserving Berks County's Resources in 1985. Additional Natural Features of Special Interest included in that publication were the Schuylkill River, Maiden Creek, Stony Creek in Tilden Township, Rattling Run Valley in Windsor Township and Furnace Creek in Windsor Township. The Schuylkill River is Pennsylvania Scenic River and excellent recreational resource.

CHAPTER 16

GEOLOGY AND AQUIFER YIELDS

INTRODUCTION

A Geology and Aquifer Yield by Formation Map of the Region depicts the boundaries of the geologic formations in the area as well as the average aquifer yield in gallons per minute (gpm) for each formation. The map provides aquifer yields in order to determine where, in general, the most productive aquifers in the area can be found.

In the description of each formation, porosity and permeability will be indicated. Below are the definitions of each term as it relates to groundwater supplies.

Porosity – the quality of being porous, full or abounding in pores. The porosity of rocks, i.e., the ratio or percentage of the total volume of the pore spaces (minute interstices through which liquids or gases can pass) in relation to the total volume of the rock. Sand, gravel, sandstones, with open textures and coarse grains, are typical porous rocks. Porosity is quite different from perviousness. Dry clay, for example, is highly porous and will hold much water in its pores, but when saturated the small spaces between the grains become blocked with water held by surface tension, preventing the passage of water. To be an aquifer or source of water a rock must be both porous and pervious. Porosity may be increased by leaching or decreased by compaction.

Permeability - is capable of being wholly penetrated by a fluid, of allowing the passage of a fluid, of being saturated. The opposite condition is termed “impermeable”.

Permeable Rock – a rock that allows the free passage of water through it owing to its porosity, e.g., sandstone. Some geologists also include rock with joints, bedding plans, cracks, fissures, etc. that allow the free passage of water, defining the porous rock as being of primary permeability and the rock with joints, etc. of secondary permeability. Other geologists distinguish the secondary group as being pervious.

INFLUENCE OF GEOLOGY

For planning purposes, we are concerned about the way that geologic formations determine soils types and potential groundwater supplies. It is desirable to identify the areas with the most potential for groundwater yields to determine where a particular effort should be made to protect groundwater supplies.

Bloomsburg Formation

This formation is located on Blue Mountain in Tilden and Windsor Townships. This is a predominately red shale and siltstone; some sandstone, thin, impure limestone, and green shale; maximum thickness is about 500 feet. It is moderately well bedded; fissile to thin, sandstone units are mostly flaggy to thick. Only slightly resistant to weathering; highly weathered to moderate depth; irregularly shaped, very small fragments result; overlying mantle is thin. The topography is usually rolling hills of medium relief; natural slopes are fairly steep and stable. The surface drainage is good. Joint-, fault- and bedding-plane openings provide a secondary porosity of low to moderate magnitude; moderate permeability.

This formation has median yield of 45 gpm and hydrogen sulfide has been noted in some wells. It is also moderately easy to excavate with a relatively fast drilling rate. Because this formation is weathered relatively easily, the cut-slope stability is poor to fair. It is a good source of road material and fill; possible source of raw material for common brick.

Hamburg Sequence and Hamburg Sequence (with Shale with Greywacke)

This sequence is located throughout the study area, from the bottom of Blue Mountain to the southern most reaches of the Region. It consists of transported rocks of the Hamburg overthrust; gray, greenish-gray, and maroon shale, silty and siliceous in many places; dark-gray impure sandstone; medium-to light-gray, finely crystalline limestone and shaly limestone; total thickness is about 3,000 feet. Shale is moderately well bedded, thin; sandstone is well bedded, thick; limestone is well bedded, flaggy.

Limestone is moderately resistant; moderately weathered to a shallow depth; small, flat, rectangular fragments result. Sandstone is moderately resistant; moderately weathered to a shallow depth; medium to large, irregularly shaped blocks result. Shale is moderately resistant; moderately to highly weathered to a deep depth; results in loose rubble of pencil-like fragments to rectangular plates; mantle is thin. The topography is usually rolling valley of medium relief; natural slopes are moderate and stable. Surface drainage is good.

Joints and bedding plane openings provide a secondary porosity of moderate magnitude; locally solution openings in limestone produce a very high porosity and permeability.

Groundwater yields of 10 to 50 gpm are obtained from most wells; limestone may yield in excess of 100 gpm; best location for high-yielding well is upland stream valley; water-bearing openings decrease in number and size with increased depth; most wells receive water from yielding zones less than 200 feet deep; surging and bailing with a commercial well conditions is recommended.

The ease of excavation is moderately easy (shale) to difficult (sandstone and limestone) with a fast drilling rate. The Cut-slope stability is fair, due to disintegration when exposed to moisture for a relatively short amount of time. It is known to be a good source of road material and fill.

Shawahgunk Formation

This formation is located on the Blue Mountain in the northern part of the study area. It consists of light to dark gray, fine to very coarse-grained sandstone and conglomerate containing thin shale interbeds; crossbedded; tightly cemented. Includes four members, in descending order: Tammany Member – conglomerate and sandstone; Lizard Creek Member - sandstone and red and green shale; Minsi Member - sandstone and conglomerate; and Weiders Member - conglomerate. Maximum thickness is 1,600 feet.

It is highly resistant and can be slightly weathered to a shallow depth and weathers irregularly in medium to large blocks. In many places it can form large boulder fields downslope from outcrop. The overlying mantle is very thin.

The topography is usually high mountains and ridges; very high relief in rough terrain; natural slopes are stable and steep. It has good surface drainage as well with intergranular porosity in conglomerate with joint openings, which provide a small to moderate secondary porosity; low permeability.

The median yield is 35 gpm and may be a poor aquifer because of topographic position; often of excellent quality.

Excavation is difficult due to boulder fields on lower slopes beneath outcrop areas, which are special problems. The drilling rate is very slow; however the cut-slope stability is good and can stand in vertical cuts if bedding is not steeply dipping toward cut. It is usually a good source of road material, riprap, concrete aggregate, embankment facing, building stone, and silica for refractory brick.

CHAPTER 17

SCENIC RESOURCES

INTRODUCTION

The Scenic Resources Map indicates scenic roads and scenic views by highlighting the roads in blue and designating the scenic vistas with blue arrows.

SCENIC ROADS

The scenic roads are roads which are particularly pleasant to drive because of the rural views along the roads. Scenic roads include: Bloody Spring Road, Pine Hill Road, Spring Road, Leshar Road, Bricker Road, and parts of Old Rt. 22, Rt. 183, Northkill Road, East Rehresburg Road, Tulley Drive, and Club Road in Upper Tulpehocken Township; portions of Schoolhouse Road, Skyline Drive, Shartlesville Road, Mountain Road, Mill Road, and parts of Penn Valley Road, Mountain Road, Wolf Creek Road, Valley Road, and Northkill Road in Upper Bern Township; Mountain View Drive, Tilden Road, Cheese Lane, Bachmoll Road, Salem Church Road, Fox Road, Saint Michael's Road, Fisher Dam Road, Pine Road and parts of Fox Road in Tilden Township; Port Clinton Avenue, Mountain Road, Hess Road, Sunday Road, Balthaser Road, Clauss Road, Monument Road, Gruber Road, Windsor Castle Road, Hein Road, Rte. 143, Strausser Road, Witchcraft Road, Reservoir Road and part of Kohler Hill Road in Windsor Township.

Hamburg has one road identified as a scenic road and Strausstown Borough does not have any identified on the map, due to the higher density of buildings and limited open space with these Boroughs. These Boroughs both have historic buildings throughout their downtowns, so, this creates a different type of scenic road, resulting from the beauty of the man-made buildings rather than the rural beauty evident throughout the Townships in the Region.

SCENIC VIEWS

These scenic views are points within the area from which there are particularly attractive views. The views are typically of rural areas, farmland, open space, stream valleys, mountains, and woodlands of the region. These areas are marked with blue arrows showing in which direction the vistas can be viewed from the local roads.

PLANNING IMPLICATIONS

The Region still contains a number of scenic roads and views, but these can be lost if strip development occurs along roads and substantial development occurs in the rural areas of the Region. It will be necessary to determine to what extent preservation of scenic resources will be made a priority within the municipalities. Preservation of scenic resources can be accomplished through broad land use policies such as open space, farmland, stream valley, and woodland preservation and/or through attention to developments as they are proposed. Performance and design standards for developments, including sighting of buildings, and conservation and cluster subdivision design, can encourage retention of scenic areas and protection of viewsheds.

CHAPTER 18

EXISTING PEDESTRIAN CIRCULATION AND PARKING ISSUES

INTRODUCTION

Existing pedestrian facilities in Northern Berks are shown on the Pedestrian Circulation Plan, discussed in Chapter 6.

Regional Sidewalk System

The map shows the extent of the existing sidewalk systems in the Region. These areas are in the Boroughs of Hamburg and Strausstown, the Village of Shartlesville, Edenburg, and the West Hamburg area of Tilden Township. Outside of Hamburg, sidewalk is found along Old Route 22 in the settlements. In Hamburg sidewalks are found in the central portion of the Borough. There are gaps in the existing systems, areas where sidewalk is provided along one side of the street but not the other, and areas not served by sidewalk. Some sidewalk is not in good condition. It will be necessary for municipalities to determine whether a more proactive policy to eliminate gaps in the system, improve sidewalks in need of repair, and serve additional areas should be enacted, particularly when routes to community facilities are involved. This could involve extensions of the sidewalk system from Old Route 22 in West Hamburg, Shartlesville, Edenburg and Strausstown. In Hamburg, areas of particular concern would be serving the length of 4th Street and connections to areas in Windsor Township and to West Hamburg. 4th Street is heavily traveled but the lower portion does not have sidewalk or curb and open areas of vehicular access.

Trails in the Region

The Bicentennial Trail has been constructed along a portion of the Schuylkill River and Schuylkill Canal Bed in Hamburg. A small section of the Bartram Trail, connecting to Tilden Township, has also been constructed. The Bartram Trail has been proposed south to Shoemakersville and north to Schuylkill County.

The Appalachian Trail is a trail of national importance passing through all the townships in the Region, on the Blue Mountain. In addition, there are connecting trails from the Appalachian Trail to Reservoir, Mountain, and Forge Dam Roads. It would be desirable to provide a trail system connecting to the trails which lead to the Appalachian Trail.

Parking in Hamburg

There is a public parking lot located in the Borough at Fourth and Pine Streets. Often, the lot is underutilized because of its distance from the Fourth Street–State Street core. Limited parking is available in the lot at the Municipal Center on North 3rd Street, but that parking is intended primarily for Borough business and the library. That lot is also away from the core intersection. Parking availability is important as a means to support revitalization of the Borough, and the Borough will need to address parking in the future as part of an overall effort toward revitalizing the downtown of Hamburg, as well as to serve residents of the Borough.

Pedestrian Amenities in the Region

Efforts are now underway in Hamburg to provide amenities such as planters. In the settlements in the Region, especially where businesses are located and tourists are served, such as Hamburg and Shartlesville, provision of amenities such as landscaping and benches can make main streets more pedestrian friendly.

CHAPTER 19

REGIONAL INFLUENCES

INTRODUCTION

Tilden, Windsor, Upper Bern, and Upper Tulpehocken Townships and Hamburg and Strausstown Boroughs are located in Northern Berks County. Wayne, South Manheim, and West Brunswick Townships and Port Clinton Borough in Schuylkill County border the area to the north. Much of this land is wooded and steeply sloped, on the Blue Mountain, Bethel, Tulpehocken, Jefferson, Penn, Centre, Perry, Greenwich, and Albany Townships in Berks County border the area to the west, south, and east. Most of the land to the west, south, and southeast is farmed. Land to the northeast is also Blue Mountain.

Major transportation routes which impact the region are Interstate 78, which traverses the middle of the entire Region, from east to west; Route 61, a north-south route which directly impacts Windsor and Tilden Townships and Hamburg Borough; Route 183, a north-south road through Upper Tulpehocken Township; and Old Route 22, which also bisects the Region, running roughly parallel to and south of Interstate 78. Reading is approximately 15 to 20 miles to the south, via Route 183 or Route 61. Pottsville is also approximately 15 to 20 miles away, to the north via Routes 183 and 61. Allentown lies approximately 30 to 35 miles to the east along I-78. Bethlehem, Easton, and Phillipsburg, New Jersey lie further east. Harrisburg is approximately 40 to 45 miles west, via I-78 and I-81.

The Northern Berks Region is influenced by other areas because of its road connections. People living in the Reading and Allentown/New Jersey areas could find Northern Berks an attractive living location within feasible commuting distance. Substantial traffic passes through the Region along I-78. I-78 also makes regional attractions, such as Cabela's and recreational facilities, accessible. Substantial traffic from Schuylkill County to the Reading area travels Route 183.

Several specific regional influences which have an impact on Northern Berks are discussed below. Some influences identified are due to specific site development, and others are generalized influences.

Cabela's Land Development

- Cabela's land development will have impacts on the road system, as it will draw workers from the local area as well as from Schuylkill County. In addition to local patrons, people from outside the Region will travel I-78 and Route 61 to visit the

site, which will significantly impact traffic patterns in the area. Approximately 6,000,000 visitors annually are expected.

- There are discussions to link the Cabela's development to other areas within Berks County, such as the VF Outlet Center in Wyomissing and downtown Hamburg Borough. There are also discussions to use different modes of transportation, such as a shuttle bus, a wheeled trolley, and/or a rail system, to facilitate transport of patrons and workers to and from the site.
- In addition to the Cabela's store and support businesses such as restaurants and motels on the Cabela's site, it is likely that there will be additional development of restaurant, motel, and shopping facilities near Cabela's and at I-78 interchanges in the Region.

Interstate 78 and the Interchanges

- Industrial and commercial development could occur near the interchanges with I-78 and have ready highway access. This development could positively impact the tax base of the Region and provide employment opportunities. By setting up proper zoning regulations, the land development that could occur around these interchanges could be an asset to the community.

Appalachian Trail

- A major tourist attraction in the Region is the Appalachian Trail along the Blue Mountain. This trail is nationally known and is one of the greatest achievements of the National Park Service. It spans 2100+ miles through the Appalachian mountain range from Springer Mountain, Georgia to Mount Katahdin, Maine. When someone attempts a "thru-hike", they set off to hike the whole trail at once without stopping. It usually takes about 5-6 months to traverse the entire trail. There are also many "day hikers" that utilize and hike segments of the trail for a day or weekend excursions. These people are more apt to get off the trail and use commercial establishments around the trail to "refuel" and purchase needed resources. An opportunity is available for low impact establishments to be developed in the settlements of Hamburg Borough and Shartlesville, which are both located at, or near, an end point of separate trail laterals. If establishments such as restaurants and hotels/Bed and Breakfasts are developed in these areas, it could become a well-known stop for hikers to relax and "refuel" and private establishments can benefit from the tourists. These establishments could be posted on the official trail website and benefit from hikers planning their excursions.