Penn, Bernville and Jefferson JOINT COMPREHENSIVE PLAN

November 2008



Penn Township, Borough of Bernville and Jefferson Township

PENN TOWNSHIP BERNVILLE BOROUGH AND JEFFERSON TOWNSHIP JOINT COMPREHENSIVE PLAN

BERKS COUNTY, PENNSYLVANIA

This Plan was adopted by:

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Chapter 1 The Joint Comprehensive Plan

Introduction and Purpose

The Bernville Borough, Penn and Jefferson Townships is a special area in Berks County. The rural and agricultural areas of Penn and Jefferson Townships, the quaint and quiet streets of Bernville and the Village areas of Mt. Pleasant and New Schaefferstown present unique challenges as well as opportunities in future land use planning. Issues such as economic growth, historic preservation, job creation, agricultural and open space preservation, cultural resource development, and maintenance of the rural setting were the themes in this Comprehensive Plan.

The challenge is to help create places and spaces where people want to be and make a future – safe, convenient and pleasant places to live; good job opportunities; a transportation system which allows convenient movement through the area; places to walk, meet and interact; restaurant and entertainment venues after work; and attractive areas in which to shop while preserving the rural and charming feel of the Region.

In 1968, the Pennsylvania legislature passed Act 247, the Pennsylvania Municipalities Planning Code. This was the legislation that enabled local governments to develop Comprehensive Plans, Zoning Ordinances, Subdivision and Land Development Ordinances, and Official Maps. In the years since then, the Act has been amended numerous times, providing municipalities with more means to implement their plans, but these original planning tools remain the foundation of local planning.

In 2000, Pennsylvania adopted amendments to the Municipalities Planning Code, specifically Acts 67 and 68, known as "Smart Growth" legislation. This new legislation allows municipalities to work together to plan regionally across municipal borders using "smart growth principles" and specifically enabled the creation of joint municipal Comprehensive Plans. A Joint Comprehensive Plan can address both development and preservation issues with the flexibility of allocating land uses over the entire planning area, rather than the traditional method of providing for all land uses within each municipality. Additionally, a Joint Comprehensive Plan allows for regional coordination of transportation and community facilities issues, which helps to prevent overlap of municipal resources. The Action Plan will address specific recommendations pertaining to these new planning tools.

A Joint Comprehensive Plan is more than just a plan for development. The Plan is a means granted to local governments by the Commonwealth of Pennsylvania by which participating communities may work together to create a vision of what they want to become and how they intend to achieve that vision. Surrounding communities are changing as well. This Joint Comprehensive Plan will help to anticipate change, to

identify community goals, and to examine local resources. It will provide the guidance that allows a higher degree of control in *how* change occurs in the Region.

Penn Township has prepared an individual Comprehensive Plan in the past while Jefferson Township and Bernville Borough prepared a Joint Comprehensive Plan. This Joint Comprehensive Plan was initiated because of the recognized need to update and examine overall planning for the area in light of development trends and issues in the Region, and to determine common goals and objectives for land use.

Contents of a Comprehensive Plan

The State allows local governments to address virtually any issue that is of municipal concern, but Act 247 established certain minimum requirements. According to §301 of Act 247, a valid Comprehensive Plan must include:

- a statement of objectives concerning future development;
- a plan for land use;
- a plan to meet the housing needs of present residents and of any anticipated increase of population;
- a plan for the movement of people and goods, which may address automobile travel, parking facilities, non-motorized trail systems, and public transportation facilities;
- a plan for community facilities and services, which may address public and private education, recreation, municipal buildings, fire and police services, libraries, hospitals, water supply and distribution, sewerage and solid waste management, storm drainage, and utilities;
- a statement of the inter-relationships among the components of the plan;
- a discussion of short-range and long-range implementation strategies for the plan objectives;
- a review of how compatible the plan is with the existing and proposed development and plans in contiguous portions of neighboring municipalities outside of the planning region;
- a statement regarding consistency with the county comprehensive plan;
- a plan for the protection of natural and historic resources; and
- a plan for the reliable supply of water.

In addition, the municipalities may address virtually any area of local concern.

It is important to realize that this Joint Comprehensive Plan does not have the force of law, although it provides the foundation for ordinances and regulations that do. In fact, a sound Joint Comprehensive Plan becomes critical in the event that an ordinance of any of the participating municipalities is challenged in court: if the ordinance in question is shown to be consistent with a duly adopted Joint Comprehensive Plan, a successful legal challenge is much more difficult than it would be otherwise.

What does a Comprehensive Plan Accomplish?

The Comprehensive Plan contains a vision of what Bernville Borough, Jefferson and Penn Townships want to achieve and includes goals, policies and strategies for realizing that vision.

The Comprehensive Plan is an educational document, providing discussion of conditions, issues, and opportunities, and identifying resources that are worthy of protection and preservation.

The Comprehensive Plan contains policies for land use, housing, circulation and community facilities which will serve as a guide for public and private decision-making to accomplish the goals and objectives, and thus the vision for the municipalities. The Plan is a guideline as to how to shape the future of the Region in accordance with that vision.

The Comprehensive Plan provides a basis for implementation techniques, such as land use ordinances, official maps and capital improvements programs, which will implement the policies contained in this plan. It is critical that the Action Plan be implemented. The Plan also provides a framework for the creation of partnerships to implement the plan.

Planning jointly allows allocation of land uses, housing types, densities, and development patterns over the entire region, rather than trying to fit all types of uses and densities into each municipality. It also allows for coordinated land use planning along municipal boundaries; coordinated planning for trails, recreation and open space, and transportation throughout the Region; and coordinated planning along the common road corridors in the Region. Coordinated input can be provided to County and State agencies and an overall approach to economic development can be presented, addressing retention of major components of the economy and allowing for appropriate commercial and industrial development, which complements rather than detracts from existing commercial areas. The following list summarizes benefits of multi-municipal planning:

Benefits of Multi-Municipal Planning

- Provides a regional planning approach and allocation of land uses
 - Where
 - How much to accommodate population projections
 - Patterns of development
- Establishes growth areas and future growth areas regionally
 - Coordination with infrastructure
 - Opportunities for infill
- Provides coordinated planning along the common boundaries of the municipalities
- Supports existing centers rather than weaken them
- Coordinates road corridor planning, standards, and management
- Provides for linkages between municipalities
- The Plan and implementing ordinances are considered by state agencies in permitting decisions
- Addresses review of "developments of regional impact"
- Identifies opportunities for future joint efforts
- Promotes common land use designations and definitions
- Establish goals for economic character over the entire Region
- Provides support for municipalities in zoning challenges
- Enables Transportation Impact Fees across municipal boundaries
- Enables Transfer of Development Rights across municipal boundaries
- Enables priority consideration in state funding programs
- Provides opportunity to learn from neighbors' shared experiences
- Enhances the Region's attractiveness to quality development

• Enables developing a "specific plan" for an area designated for non-residential development, preparing regulations for that area, and streamlining the approval process

Arrangement of This Document

This Joint Comprehensive Plan has been arranged in that the conclusions and plan elements are presented in one chapter. The Plan should be a reference document that users will consult for guidance or research on specific topics. Also, since this document is a *plan*, it is logical to give the plan elements prominence rather than precede it with research about conditions that will change over time and become increasingly irrelevant.

The initial introductory information is designed to provide the user with sufficient information on the planning process and planning terms to assure clear understanding of the document. A summary of the public participation information is provided to give a sense of the character of the community and of the issues that will be addressed by the plan, and finally the Vision, Goals and Objectives which name the more specific issues to be addressed by this Plan.

Methodology

The Planning Committee began the planning process in 2007 by selecting Spotts, Stevens and McCoy (SSM) as the professional planning consultants to work with the County and municipalities. Local officials appointed a Planning Committee to work with the consultants, including representatives from the Townships of Penn and Jefferson and Bernville Borough and the Berks County Regional Planning Commission.

The Committee held meetings starting in the Fall of 2007 for the duration of the planning process. Among the earliest actions of the Committee was to identify ways to gain input from local residents and business owners regarding their perceptions of the municipalities, and any critical issues they share.

- Interviews were done via telephone to key persons identified by the committee.
- Surveys were sent out and set out at the local Post Office. Responses were tallied and cross tabulated to analyze the input of the public.

A summary of all public participation is included in Chapter 3, *Identification of Issues – Public Participation*.

Once the planning process was underway, Committee meetings were largely occupied with discussion of the various plan issues and review of text as prepared by SSM. Upon

completion of the text and maps, the entire draft document was reviewed to assure that the plan elements created a coherent whole.

As required by Act 247, the complete draft was submitted to the Berks County Planning Commission, the adjacent school districts, and each adjoining municipality in regional order to allow them to review and comment upon the Plan. Drafts were also available for public review. Each Municipal Planning Commission convened a public meeting for the purpose of presenting the draft as submitted by the Committee to the public, and to solicit comments. Following the Public Meetings, the governing bodies held official public hearings, as per the requirements of the Municipalities Planning Code, to hear any additional comments from their respective residents. The Plan was officially adopted in

Need for Continuing Planning

This Comprehensive Plan is just a start. It is the foundation for the attainment of the goals and objectives established within the Plan, which can be accomplished only with the support of the municipal governments, municipal commissions, boards and committees, area businesses, area residents, and surrounding municipalities and regional planning groups.

The objective has been to prepare a plan, which will not sit on a shelf and gather dust, but a plan that will be implemented and used by municipal governing bodies, planning commissions and other groups within the municipalities to guide their actions in attaining the goals of this Plan.

This Plan presents a strategy to guide municipal officials and other agencies in making decisions that will assure that the Region will continue to be an attractive place in which to live, work, and visit. This Comprehensive Plan is not an ordinance or regulation, but is a basis for establishing regulations and undertaking specific functional plans designed to implement the policies set forth within the plan. Each municipality retains the right to control zoning within its municipality, whether through individual zoning ordinances or a joint zoning ordinance.

Planning is an ongoing process and this Joint Comprehensive Plan must be continually reviewed in light of unforeseen changes in development trends, the state of the economy, capacity of public infrastructure, changes in community goals, and the appropriateness of the Plan's objectives, policies, and implementation program. It is recommended that the recommendations of this Plan be reviewed every 5 years.

Chapter 2

Regional Setting and Adjacent Planning

Geographic Setting and Influences

Penn Township, Bernville Borough, and Jefferson Township are located in western Berks County in southeastern Pennsylvania. Berks County lies along the edge of the Delaware Valley region, which is part of a growing urban corridor between New York and Washington, D.C. and one of the leading industrial and trade regions of the United States.

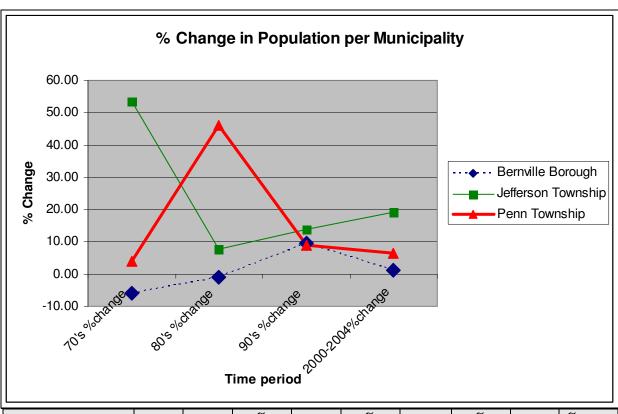
Penn Township, Bernville Borough and Jefferson Township are located approximately 7-12 miles northwest of the City of Reading along PA Route 183. The three municipalities are located approximately 5 miles south of Interstate 78. The Borough and Townships together comprise 35.6 square miles, 19.1 square miles in Penn Township, 16.1 square miles in Jefferson Township and 0.4 square miles in Bernville Borough.

Bernville Borough is a small, mature community with a mixed use Main Street area surrounded by older and newer residential neighborhoods. The Borough's housing stock is a mix of attached and detached housing types. Historic churches and other reminders of the area's unique heritage are found throughout both Jefferson and Bernville. Jefferson and Penn Townships are picturesque, rural communities consisting of farmland, single-family homes and some commercial development on PA Route 183. Hilly terrain, rolling farmland and scenic creek corridors are the primary features of both Penn and Jefferson's landscape. Currently, Penn Township and Jefferson Township are two of the County's least densely populated municipalities, however those numbers continue to increase as development expands along the PA Route 183 corridor.

Bernville is almost fully built-out with only a moderate amount of land left for new growth. Redevelopment of under-utilized property and appropriate in-fill uses are the Borough's primary land use concerns. Jefferson Township has vast areas of currently undeveloped land that is physically well suited for construction. Penn Township is limited in future development by steep slopes located in the area. Mt. Pleasant continues to be the largest population center of Penn Township. It is surrounded by State Game Lands and Blue Marsh Lake which limits future development.

The Region is bordered by the Townships of Upper Bern, Centre, Upper Tulpehocken, Tulpehocken, Marion, North Heidelberg, Bern, and a small portion of Lower Heidelberg. The largest growth according to the 2004 population estimate is in Jefferson Township with nineteen percent growth followed by Lower Heidelberg with almost fifteen percent. The previous decade of growth was significant in several of the adjacent municipalities with nine out of twelve of the municipalities experiencing ten percent growth or higher. The County has been relatively stable over the past 30 years. In the graph below you can easily see that the growth is occurring in Jefferson Township while Bernville Borough

has relatively no growth and Penn Township is less than ten percent growth per the County's estimates for 2004.



			%		%		%		%
MUNICIPALITIES	1970	1980	Change	1990	Change	2000	Change	2004*	Change
Bernville Borough	848	798	-5.90%	789	-1.13%	865	9.63%	874	1.04%
Jefferson Township	854	1,310	53.40%	1,410	7.63%	1,604	13.76%	1,913	19.26%
Penn Township	1,205	1,254	4.07%	1,831	46.01%	1,993	8.85%	2,121	6.42%
Region	2,907	3,362	15.65%	4,030	19.87%	4,462	10.72%	4,908	10%

Commercial Areas and Employment Centers

The Townships and Borough are considered "bedroom" communities because the Region lacks a substantial employment base and many residents commute to the surrounding municipalities for jobs. The average commute times for the Region are: 22 minutes for Penn Township and Bernville Borough and 27 minutes for Jefferson Township. Both the Borough and Penn Township are slightly less than the U.S. and Pennsylvania averages, 25 and 26 minutes, respectively, however Jefferson is slightly higher.

Most of the local commercial and industrial areas are located along PA Route 183 and in Bernville Borough. Commercial land makes up less than two percent (<2%) of the

Township's total land area. These activities include professional services and retail business, such as auto repair, shops, and restaurants.

REGIONAL PLANNING

The Berks County Comprehensive Plan

The Future Land Use Component of Berks County Comprehensive Plan has Designated Growth Areas in Penn Township, surrounding Bernville. There are additional Future Growth Areas in both Penn Township and Jefferson Township. Future Growth Areas and Designated Growth Areas are multi-purpose activity areas characterized by concentrated density and urban development. Designated Growth Areas are located in areas surrounding Existing Developed Areas. These areas are suitable for high density development in the immediate future due to the presence of the necessary public infrastructure services needed to accommodate growth.

Several factors affect the suitability of Designated Growth Areas for development; a few are:

- o availability of sewer and water capacity
- o proximity to areas of existing concentrated development
- o transportation capacity and access

Future Growth Areas include areas outside of or adjacent to Designated Growth Areas where development at higher densities is appropriate, and public infrastructure services may or may not be provided, but future extension of infrastructure is planned to accommodate development of higher densities.

Development appropriate for Designated and Future Growth Areas include, but are not limited to:

- o residential
- employment concentrations
- o institutional or social services
- o community and emergency facilities
- o sewer and water capabilities
- o cultural, entertainment, and recreational facilities
- o transportation network development and maintenance

The benefits of establishing Growth Areas are to provide a logical basis for land use decision making, and will not only benefit the County as a whole but will benefit municipal planning efforts. The benefits of designating growth areas are summarized as follows:

- Existing Communities through redirected growth will decrease the likelihood of communities merging together and losing a sense of community character and identity.
- Community Facilities and Services Services, such as roads, water and sewer lines, schools, fire stations, and police protection, will become more cost-efficient, and service costs and property taxes will be minimized.
- **Transportation** Coordination of transportation planning will allow a more concentrated pattern of development thus resulting in a reduction in the number and length of trips needed to reach destinations. Mass transit planning will also become more efficient with concentrated patterns of origins and destinations.
- **Housing** Decreased public service costs will reduce housing prices due to lower land costs and development fees.
- **Agriculture** Growth Areas minimize leap-frog development into agriculture areas which reduces the loss of farmlands.
- Natural Resources A compact pattern of development reduces the threat of destruction to important resource lands. This will help to protect resources such as floodplains, wetlands, wildlife habitats, prime soils, and steep slope areas.
- **The Economy** Overall growth in specified areas will provide locations for commercial and industrial needs with the necessary infrastructure available. The farming community will also benefit through improved stability in farmland areas and less intrusion of urbanized uses.
- **Cooperative Planning** Regional and County planning will be improved. Established regional growth areas will make municipal decisions more consistent, more predictable and simpler.

ADJACENT MUNICIPAL PLANNING

The Region is bordered by the Townships of Upper Bern, Centre, Upper Tulpehocken, Tulpehocken, Marion, North Heidelberg, Bern, and a small portion of Lower Heidelberg. The following is a brief summary of the recommendations of the comprehensive plans and zoning ordinances of adjacent municipalities to the Joint Regional Comprehensive Plan.

Upper Bern Township

Upper Bern Township is located northeast of the Region solely bordering Penn Township. It is 18.3 square miles and the population is 1,479 (U.S. Census 2000), which is all rural.

Land that is zoned Agricultural Preservation is proposed for the adjacent land use in Upper Bern Township. Land in Penn Township is low density Residential and Rural. This achieves consistency between the Townships.

Centre Township

Centre Township is located east of Penn Township. The Township had a 2000 population of 3,631 (2000 census) and is 21.6 square miles. 21.4 square miles is land while the remaining .2 square miles is water. The Township is 86% rural and 14% urban.

The northwest portion of Centre Township is designated as Low Density Residential (R-1), which borders agriculture land in Jefferson Township. The southwest portion is Agricultural Preservation in Centre Township and Rural Conservation, Agricultural Preservation and low density residential in Penn Township. This achieves consistency between the Townships.

Upper Tulpehocken Township

Upper Tulpehocken Township borders Jefferson Township to the North. It is a rural Township with 22.9 square miles. The population is 1,495.

The land use designation in Upper Tulpehocken adjacent to Jefferson Township is consistent. Effective Agriculture Preservation accounts for the largest area while Rural Preservation and Recreational-Commercial account for a small portion. Jefferson Township is mostly Agricultural Preservation with a small area of existing development that is adjacent to Rural Preservation and Recreational-Commercial.

Tulpehocken Township

Tulpehocken Township is located west of Jefferson Township. The land area is 23.3 square miles with a rural population of 3,290.

The border of Tulpehocken and Jefferson is predominately Agricultural Preservation with a few areas for Rural Conservation. This achieves consistency between the plans.

Marion Township

Marion Township is a small rural Township with a population of 1,064. It is located southwest of Jefferson Township. The land area is 14.8 square miles. The border of Marion and Jefferson Townships is predominately Agricultural Preservation on both sides. This achieves consistency between the plans.

North Heidelberg Township

North Heidelberg Township is another example of a small rural Township. The population is 1,325 with a land area of 13.5 square miles. North Heidelberg Township is consistent with Jefferson Township and Penn Township.

North Heidelberg borders Jefferson Township in the southeast and acts as the western border for Penn Township.

The border between Penn Township and North Heidelberg is buffered by Tulpehocken Creek and Blue Marsh while Jefferson Township has Effective Agricultural Preservation next to Conservation and Agricultural Preservation.

Lower Heidelberg Township

Lower Heidelberg Township has a population of 4,150 and is 14.9 square miles of land with .5 square miles of water. Unlike most of the other adjacent municipalities, Lower Heidelberg Township is 56% Urban and 44% Rural.

Lower Heidelberg has a very small border with Penn Township on the southeastern side of the Township. The Townships are separated by Blue Marsh Lake.

Bern Township

Bern Township has a land area of 19.2 square miles with a water area of .8 square miles. The population is 6,758 with 58% of that being urban and 42% as rural.

border Penn Tov	s Rural Residential, wnship's Residential 's Commercial zoning ships.	zone. A small a	rea of Highway	Commercial border

BERNVILLE BOROUGH QUICK FACTS

HISTORY: Established 1851 (founded 1819)

LAND AREA: .4 square miles

POPULATION (2000): 865

1990-2000 growth rates of (9.6%) Median household income is \$41,250

GOVERNMENT: Borough governed by a seven-member Borough Council. Boards and

Commissions include the Planning Commission, Recreation Board, and the Zoning Hearing Board. The day-to-day operations are administered by

a part time Borough Secretary/Treasurer.

In the Commonwealth of Pennsylvania: 11th Senatorial District and 129th

Legislative District.

In the U.S. House of Representatives: 17th Congressional District of

Pennsylvania

SEWER AND WATER: (1) Municipal wastewater treatment systems

• Bernville Borough

(1) Source for water

• Bernville Borough Authority

EDUCATION: Tulpehocken Area School District – Public school for grades K-12.

Comprised of one combined high school and junior high, and two

elementary schools.

BOROUGH OFFICE: Bernville Borough

6602 Bernville Road Bernville, PA 19506 Phone: 610-488-1591

Fax: 610-488-6425

JEFFERSON TOWNSHIP QUICK FACTS

HISTORY: Established 1851 **LAND AREA:** 16.1 square miles

POPULATION (2000): 1,604

1990-2000 growth rate of (13.8%) Median household income is \$51,532

GOVERNMENT: Township governed by a three-member Board of Supervisors. Boards and

Commissions include the Planning Commission and the Zoning Hearing Board. The day-to-day operations are administered by a Township

Manager.

In the Commonwealth of Pennsylvania: 48th Senatorial District and 129th

Legislative District.

In the U.S. House of Representatives: 17th Congressional District of

Pennsylvania

SEWER AND WATER: Municipal wastewater treatment systems – (0)

Non-Municipal wastewater treatment systems

- North Heidelberg Sewer and Water Company serves a limited portion of Jefferson Township
- Tulpehocken School District sewer system serves a limited portion of Jefferson Township
- Private on-lot systems support the remainder of the Township.

Source for water

- North Heidelberg Sewer and Water Company
- Private Wells

EDUCATION: Tulpehocken Area School District. – Public school for grades K-12.

Comprised of one combined high school and junior high, and two

elementary schools.

TOWNSHIP OFFICE: Jefferson Township

5 Solly Lane

Bernville, PA 19506 Phone: 610-488-7047 Fax: 610-488-0562

PENN TOWNSHIP QUICK FACTS

HISTORY: Established 1840
LAND AREA: 19.1 square miles

POPULATION (2000): 1,993

1990-2000 growth rate of (8.9%) Median household income is \$55,000

GOVERNMENT: Township governed by a three-member Board of Supervisors. Boards and

Commissions include the Planning Commission, and the Zoning Hearing Board. The day-to-day operations are administered by a Township

Manager.

In the Commonwealth of Pennsylvania: 11th Senatorial District and 129th

Legislative District.

In the U.S. House of Representatives: 17th Congressional District of

Pennsylvania

SEWER AND WATER: Municipal wastewater treatment systems

• Bernville Borough Authority – serves a small portion of Penn Township

Non-Municipal wastewater treatment systems

• Private on-lot systems support the remainder of the Township

Sources for water

• Bernville Borough Authority

Private Wells

EDUCATION: Tulpehocken Area School District – Public school for grades K-12.

Comprised of one combined high school and junior high, and two

elementary schools.

TOWNSHIP OFFICE: Penn Township

840 North Garfield Road Bernville, PA 19506 Phone: 610-488-1160 Fax: 610-488-0562

Chapter 3

Identification of Issues - Public Participation

For a Joint Comprehensive Plan to be a useful tool for guiding future development and policy in an area, it must represent a consensus among the Region's stakeholders. The residents, business owners, community service providers, and municipal officials must each have a part in forming the policies of the Joint Comprehensive Plan.

The Pennsylvania Municipalities Planning Code (MPC) requires public input at the *end* of the process, in the form of public meetings and public hearings. Restricting public involvement to merely what is required is not likely to produce a successful plan, as the public will have little sense of participation in the process or ownership of the final document: they are being asked to approve a plan in which they had no voice. Early and frequent public participation is essential to the development of a practical, community-based Comprehensive Plan, regardless of the number of municipalities that are involved.

The public participation component of the Penn, Jefferson and Bernville Joint Comprehensive Plan far surpasses the requirements of the MPC. Public input was sought early in the planning process, well before any policies or future land uses were determined. A three-pronged approach to direct public input was implemented.

- The Committee held monthly meetings, which were open to the public, starting in September 2007 for the duration of the planning process. Among the earliest actions of the Committee was to identify ways to gain input of residents of the Region, as well as business owners and community stakeholders identified by the Committee, regarding their perceptions of the municipalities, and any critical issues they share.
- The Committee and SSM prepared a written questionnaire that was given to over 51 households in the Region and placed at the Bernville Post Office for general population input. The written questionnaires allowed the responders to be anonymous, but some personal information was asked in order to identify concerns that were more prevalent among specific demographic groups. The questions were largely similar to those asked in the interviews, but were structured in a way that allowed for quantitative analysis of the responses. Questionnaire responses were reviewed and analyzed by Berks County Planning Department.
- SSM conducted a series of telephone interviews with specific individuals identified by the Committee. The selected persons were chosen because of their positions within the community and the particular insights those positions gave them. The interviewees included a variety of public officials, local business leaders, and farmers. These individuals were questioned about their specific likes and dislikes in the Region, what they felt were the most pressing issues facing the

community, what they would like the community to become, and other questions more directly related to their particular areas of expertise.

• SSM, The Committee, and Berks County Planning Department Coordinator held a public meeting on June 2, 2008 to review a draft of the plan prior to sending it to the Planning Commissions for review and approval. The meeting was attended by 14 people representing a variety of interests. There were minor adjustments noted. The decision was made to make the necessary changes and move forward to the Planning Commission meetings for recommendation that the Joint Comprehensive Plan be forward for the official review and adoption process.

This chapter will include an analysis of the results of the public outreach, including a summary of the questionnaire results.

Actual detailed questionnaire results for each municipality can be found in Appendix A.

QUESTIONNAIRE ANALYSIS AND PLANNING CONCLUSIONS

Over 50 surveys were handed out to specific residents while over 100 surveys were placed at the Bernville Post Office. 51 surveys were returned from the handed out questionnaires and 47 were returned from the Post Office.

Three people per municipality were selected to be interviewed. Of these, eight were able to participate and one was unable to be interviewed due to a personal situation.

The breakdown of participation per municipality is as follows:

	Bernville	Penn Township	Jefferson Township
Committee Survey	8	22	21
Post Office Survey	31	5	11

The following results are combined for the Planning Region. The results are tallied according to the Committee or Post Office Surveys. Undecided, neutral, or blank responses are not included in this summary chapter; therefore, most categories will not add up to 100% response. It can be concluded that the balance of results fall into the aforementioned categories.

CITIZEN SURVEY HIGHLIGHTS / COMPARISONS

1. Would you agree or disagree that there should be more cooperation among the municipalities in the Penn/Jefferson/Bernville region in the following areas?

	COMMITTEE SURVEYS		POST OFFIC	E SURVEYS
	Agree	Disagree	Agree	Disagree
Joint Zoning Ordinances	51%	22%	58%	15%
Regional Fire Protection	73%	8%	77%	8%
Regional Police Protection	65%	17%	79%	13%
Economic Development/Retention	57%	14%	65%	10%
Public sewer and water service	27%	39%	48%	27%
Emergency medical service	76%	4%	85%	2%

2. Please indicate whether you are satisfied with each of the following aspects of the Region:

	COMMITTEE SURVEYS		POST OFFICE SURVEYS	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Attractiveness/aesthetics of the area	82%	6%	63%	13%
Housing cost	57%	12%	48%	17%
Convenience to shopping	61%	24%	54%	23%
Fire protection services	88%	2%	67%	2%
Housing availability/choice	59%	6%	60%	6%
Law enforcement services	43%	29%	40%	25%
Management of growth and new development	33%	24%	10%	44%
Parks/open space	80%	6%	50%	17%
Playgrounds for children	65%	12%	48%	23%
Quality of public schools	65%	18%	46%	19%
Recreational opportunities	65%	12%	58%	10%
Road surface conditions	61%	25%	42%	29%
Sense of community	55%	12%	40%	17%
Traffic volume	29%	51%	21%	50%
Job opportunities	27%	43%	17%	40%
Convenience to work	51%	10%	40%	15%
Tax rates	31%	57%	10%	63%
Cost of living	43%	27%	35%	31%
Walking opportunities	71%	14%	46%	23%
Biking opportunities	67%	14%	40%	15%
Medical services	84%	4%	65%	4%
Feeling of safety	71%	8%	50%	13%

3. Agricultural Preservation Questions:

Questions:	estions: COMMITTEE SURVEYS			
	Yes	No	Yes	No
Should the municipalities consider stronger policies				
for preservation of agricultural land?				
	75%	12%	73%	10%
Should Penn / Jefferson / Bernville protect				
agricultural resources through zoning regulations?				
	82%	8%	77%	8%
Should Penn / Jefferson / Bernville protect natural				
and environmental resources such as stream corridors				
through zoning regulations?				
	82%	8%	71%	6%

4. Property/Code Questions:

Questions:	COMMITTEE SURVEYS		POST OFF SURVEYS	_
	Yes	No	Yes	No
Do you think that properties in the region are being adequately maintained?				
	67%	14%	52%	25%
Should the municipalities get stricter when enforcing codes (building maintenance / yard maintenance), particularly with rental properties?				
	57%	18%	63%	13%

5. How likely would you be to support an increase in taxes that might address each of the following initiatives? This question is specifically exploring whether you would be willing to increase your taxes for these services. For each individual item, please assume your total annual tax increase would be approximately \$20?

	COMMITTEE SURVEYS		POST OFFIC	CE SURVEYS
	Likely	Unlikely	Likely	Unlikely
Road improvements in the				
Borough/ Townships	45%	39%	21%	44%
Public sewer and water				
improvements in the Borough/				
Townships	16%	59%	13%	56%
Promoting economic				
development in the				
Borough/Townships	35%	47%	42%	31%
Preservation/protection of				
historic resources	41%	31%	44%	33%
Preservation/maintenance of				
open space for environmental				
and aesthetic purposes	49%	27%	42%	25%
Improvements to or maintenance				
of existing parks and recreational				
facilities in the				
Borough/Township	45%	27%	38%	31%
Biking, hiking, and walking				
trails in the Borough/Townships	35%	37%	42%	31%
Preserving agricultural land	63%	22%	56%	17%
Increased police/public safety	61%	27%	44%	31%
Acquisition of additional				
Borough/ Township property for				
public parkland (new parks or				
expansion of existing parks)	25%	51%	25%	38%

6. In your opinion, are more of these services desirable in the region? (Please check one opinion per category)

	COMMITTI	COMMITTEE SURVEYS		CE SURVEYS
	Agree	Disagree	Agree	Disagree
Light Manufacturing	71%	14%	67%	19%
Medium to heavy manufacturing	29%	39%	42%	25%
Warehousing and distribution	35%	37%	46%	27%
Shopping centers	14%	65%	25%	48%
Strip malls	16%	59%	15%	54%
Convenience stores	31%	49%	25%	48%
Specialty retail	27%	39%	31%	38%
Personal services (beauty /fitness)	20%	39%	27%	29%
Health services	41%	31%	46%	17%
Professional service firms	47%	27%	35%	21%
Legal and financial services	29%	33%	29%	21%
Technology based firms	37%	20%	27%	17%
Research and development firms	27%	25%	29%	21%
Restaurants	73%	12%	58%	17%
Preservation of open space / farmland	88%	8%	73%	6%
Cultural/community facilities	39%	25%	40%	21%
Recreational opportunities	39%	25%	35%	23%
Heritage tourism attractions	39%	27%	48%	10%
Door to door transit	16%	47%	19%	33%

7. Would you be in favor of additional traffic lights on Route 183 through the region?

	YES	NO
Committee Survey	61%	29%
Post Office Survey	61%	19%

ADDRESSING SURVEY FINDINGS IN THE COMPREHENSIVE PLAN

This Joint Comprehensive Plan will include five (5) distinct plan elements. The responses from the residents could affect these elements in the following ways.

Land Use:

Respondents stated that they like the current character of their communities. While "character" is a somewhat indefinable quality touching on a range of aspects, there is a strong visual element. Preservation of community character may be largely (although not entirely) addressed by the land use and housing elements of the plan. These elements should therefore provide for growth that represents a natural evolution of the existing development patterns, rather than a dramatic departure from those forms.

Economic Development:

The respondents did not show much of an interest in economic development; especially when it came to financially supporting it though tax money. We note that this concern complements those expressed by the Region respondents regarding the loss of agricultural and rural areas to residential development. A large majority of respondents desire light manufacturing in the Region and restaurants. Almost half are interested in professional service firms and a third are interested in technology based firms for the Region. There were some significant differences in respondents from the committee surveys and the post office surveys. Most notably on the desire for medium to heavy manufacturing and warehousing and distribution. Both sets of respondents were dissatisfied with the job opportunities in the Region. Respondents on the phone interview surveys as well as the additional commenting section of the written survey, all expressed a need to streamline the process for new businesses in the Region.

Transportation:

Transportation concerns, mainly volume and flow issues, ranked high with residents. Respondents were generally satisfied with road surface conditions and were less likely to support a tax increase for road improvements. Most respondents favored additional traffic lights on Route 183. A few respondents commented on the poor road conditions in Bernville Borough. The transportation plan has identified

intersection improvements as well as road widening needs in the Region.

Facilities & Services:

All respondents indicated a high level of satisfaction with emergency services (i.e., police and fire protection), and also indicated these services were an appropriate use of tax money. Respondents from the Region were enthusiastic regarding regional services and protection.

There was some support to maintaining or improving existing parks and recreational facilities in the Region but very little support for the development of new recreational areas. Respondents felt like they had plenty of recreation, especially with nearby Blue Marsh Lake, however, there were several comments that Jefferson Township does not have a community park, only sports fields.

Resource Conservation & Historic Preservation:

Respondents indicated strong interest in farmland/open space and historic preservation. This suggests that a standing committee for historic and/or environmental preservation concerns may do well.

Chapter 4 Existing Land Use

Introduction

It is impossible to plan for the future land use without first understanding what patterns exist today. This chapter discusses the existing land uses by category and acreage in Penn and Jefferson Townships, and Bernville Borough. The approximate acreage of each category is provided for a comprehensive overview of how land was utilized at the time this Plan was developed. Existing land use patterns not only have a significant impact on the development of the future land use plan, but they affect circulation within the area and the demand for community facilities and services as well. By understanding how land is utilized, one can plan for uses that may be desired or that are currently lacking in the region.

The Berks County Planning Commission supplied the GIS (Geographic Information System) information to create Figure 4.1, the Existing Land Use Map for the Region. This data was based on the Berks County tax assessment of each parcel in the Region.

Land Uses are classified into the following types for mapping purposes.

- Agriculture
- Commercial
- Industrial
- Institutional
- Mixed Use
- Mobile Home
- Multi-Family
- Residential

The Existing Land Use Map should be used in conjunction with other maps in this document. The Agricultural Soils Map, Figure 7.2, is particularly helpful in further analyzing the agriculture/agribusiness on the Existing Land Use Map, Figure 4.1. The Agricultural Soils Map shows prime agricultural soils, agricultural security areas, and agricultural easements within the Region.

LAND USE PATTERNS

Concern for the use of land is the essence of comprehensive planning. The existing land use pattern in Jefferson and Bernville is based on the development form that first shaped Berks County: rural villages serving as commercial marketplaces and population centers for the surrounding countryside. Residential subdivisions, shopping centers and strip commercial development are among the modern trends that are changing the balance that once existed between town and country in Berks County. Jefferson and Bernville today are a mixture of the area's historic configuration and its more recent development trends.

The Region has experienced modest population growth and expansion over the past 20 years. Penn and Jefferson Township includes the largest clusters of population in the Region while the Borough has the highest density of population.

Residential development, farmland, institutional and rural areas are most prevalent in the Region; however, there are other land use characteristics as well. Commercial and industrial areas are found predominately in Jefferson Township along PA Route 183 and Christmas Village/Womelsdorf Road. The PA Route 183 Corridor plays a vital role in the Region's economy. Other uses in the Region include institutional areas, multi-family residential, and various scattered undeveloped parcels and buildings that offer future development potential. The land use categories and approximate acreage of each are described in detail in Table 4.2.

Figure 4.3, the Existing Zoning Map, shows the Region and its current zoning regulations. While the zoning looks to be sufficient in protecting the Region's natural and agricultural resources, comparing it to the Existing Land Use Map, Figure 4.1 reveals the pattern of low density residential within the Agricultural, Open Space, and Conservation categories.

The past year has seen increasing numbers of residential development plans submitted in Penn Township and a decrease in Jefferson Township. However, even with the increased growth pressure in the Region, undeveloped parcels still remain, which offer infill development potential.

Table 4.1: Building Permits Issued for New Housing Units

YEAR	BERNVILLE BOROUGH	JEFFERSON TOWNSHIP	PENN TOWNSHIP	TULPEHOCKEN SCHOOL DISTRICT
2000	3	14	23	84
2001	1	31	17	83
2002	9	35	8	92
2003	6	43	13	104
2004	0	39	10	77
2005	0	41	4	73
2006	0	25	14	58
Total	19	228	89	571

Source: Berks County Tax Assessment Office

Below are the descriptions of each of the land use categories displayed on the Existing Land Use Map, as well as acreage developed under each category. Trends are discussed following the descriptions.

The existing land use allocation shows the current land use in the Region with the total acreage used in each category. The category with the largest acreage is Agriculture followed by Residential then Institutional.

Table 4.2: Existing Land Use Allocation

	Jefferson		Bernville	REGION
	Township	Penn Township	Borough	TOTAL
Agriculture	6,588.46	5982.82	54.85	12,626.13
Commercial	362.15	88.82	9.65	460.62
Industrial	191.22	22.33	9.14	222.69
Institutional	394.41	3000.53	73.59	3468.53
Mixed Use	.38	1.12	0	1.5
Mobile Home	56.14	28.13	.09	84.36
Multi-Family	3.33	2.87	4.95	11.15
Residential	2341.53	2514.96	91.04	4947.53
Road	306.71	334.78	33.56	675.05
Stream	16.03	.21	0	16.24
TOTAL	10,260.36	11976.57	276.87	22,513.8

SOURCE: Berks County Planning Commission, 2002; verified by SSM

Agriculture

The Agriculture category consists of areas currently or typically in agricultural use (cropland, pastureland, dairy facilities, barns, and stables), along with agriculturally based businesses.

Commercial

Commercial uses consist of all properties where goods and services are sold, ranging from restaurants, convenience stores, gas stations, and markets, to professional offices and golf courses. Commercial development is concentrated mostly along the PA Route 183 Corridor, although scattered small commercial operations may be found intermixed with residential development.

Industrial

The industrial land use category includes all properties being used for manufacturing and processing facilities, quarries, research and development facilities, metal- and woodworking shops, truck terminals, airports, and office/warehouse uses. The Region's industrial development includes industries located along PA Route 183, Bernville Borough and a small area in Penn Township.

Institutional

Institutional lands include buildings and lands owned by the municipal, county, state, or federal governments; churches; recreational, cultural, and park facilities; libraries; schools; churches and adjacent properties; fire stations. Specific descriptions and examples of this use are provided in Chapter 9, Community Facilities & Services.

Mobile Home Park

This category includes the mobile home park in the Region that is located in Jefferson Township.

Multi-Family Residential

Multi-family residential uses are scattered throughout the Region and cover substantially less total acreage than single-family residential housing. This category consists of the following specific development types: three-family residences, condominiums, apartments (including those over garages), and residential conversions.

Residential

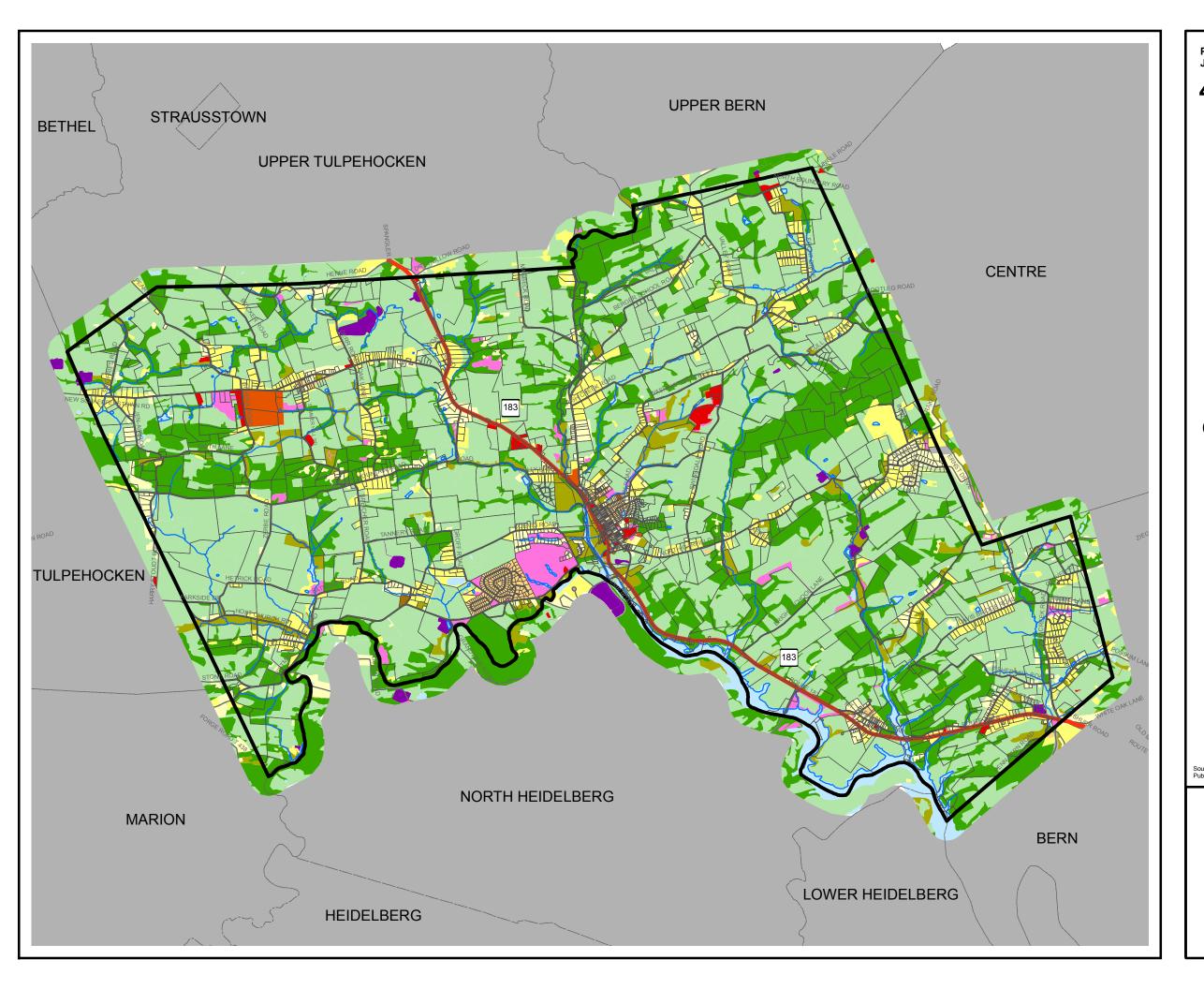
This is the second largest land use after Agriculture in the Region. Specific development types included in this category are single-family dwellings and two-family dwellings (when constructed as semi-detached or "twin" houses). Significant concentrations of single-family residential development are located throughout the Region, with the highest concentrations located in Jefferson and Penn Townships.

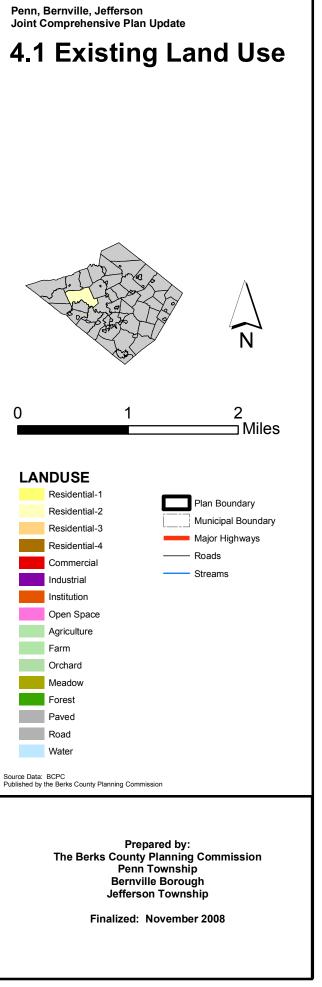
Understanding the Trends

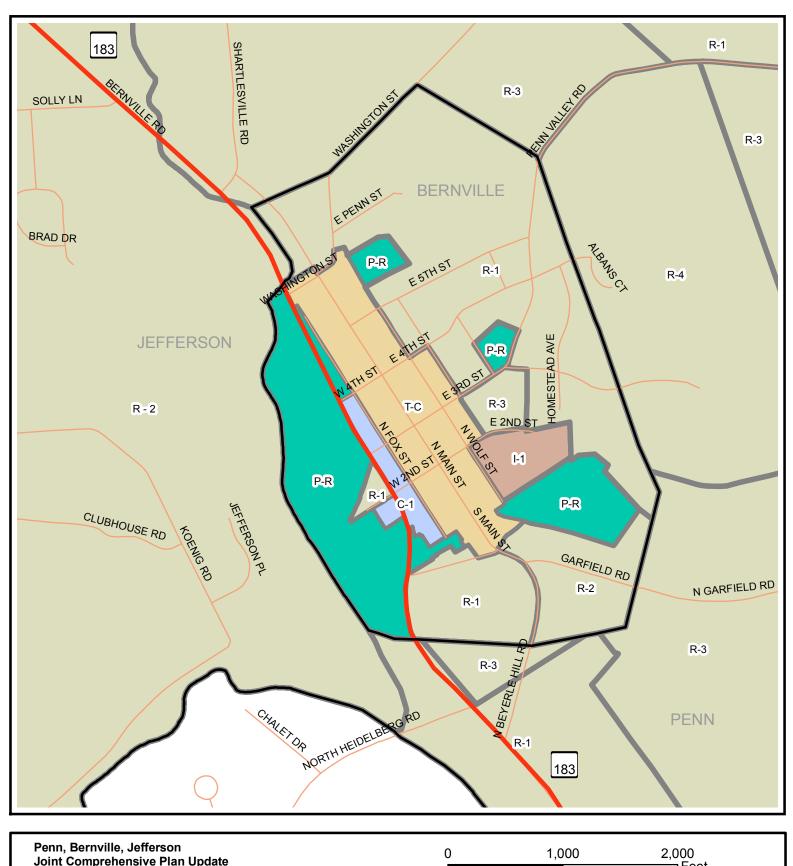
Analysis of the Existing Land Use Map reveals several land use trends in the Region. One of the most important factors to the economy of a region is a healthy commercial and industrial base. There is one concentration of industrial use in Jefferson Township with smaller concentrations in Bernville and Penn Township. The Townships also have the potential to increase the level of commercial and industrial development through their zoning regulations, which can allow these uses in areas consistent with this Plan.

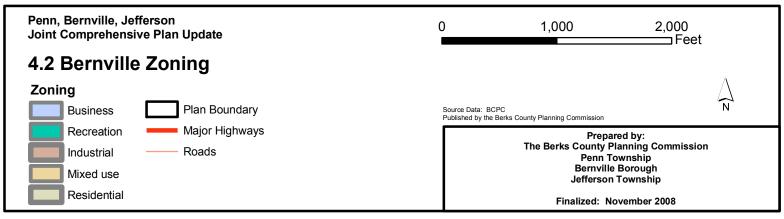
The Region is dominated by farmland, some productive, some simply meadow and open space. This abundance of open land and farms adds to the rural character and quality of life that is so important to the Region's residents. Residential development pressure has increased over the past few years, and if left unchecked will slowly break up the Region's rural landscape.

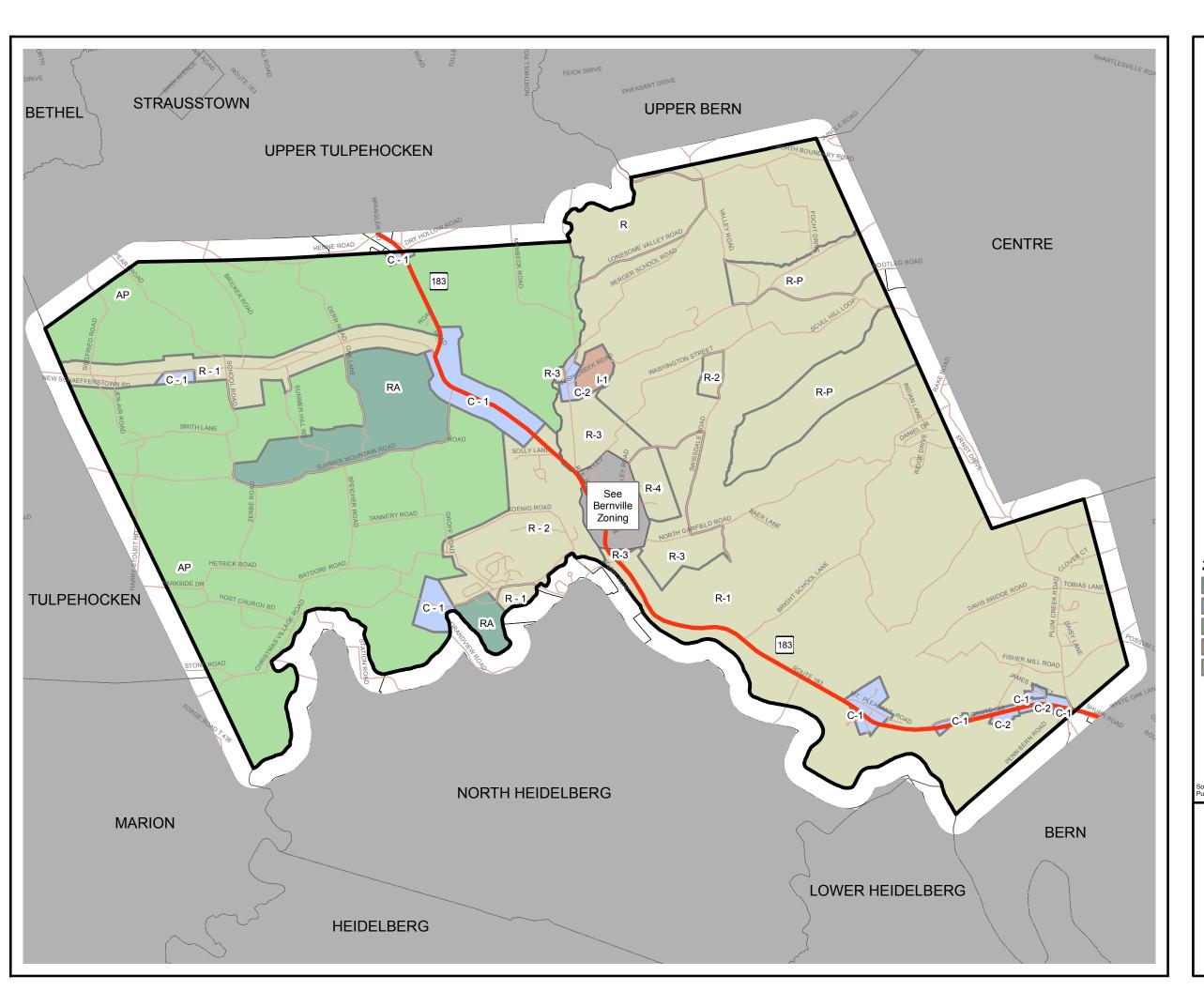
Higher density residential areas are located throughout the region with slightly more in Bernville Borough. The Region has experienced increased development as seen by the building permits granted in Chapter 5. This development pattern, if it continues, could erode the Region's rural character and threaten the viability of agriculture in the future. It is critical that new growth be encouraged to locate in the Designated Growth Areas delineated in this Plan.











Penn, Bernville, Jefferson, Joint Comprehensive Plan Update 4.3 Jefferson, Penn **Zoning Districts** Zoning Agricultural Plan Boundary Commercial Municipal Boundary Effective Agricultural Major Highways Industrial Roads Residential Source Data: BCPC Published by the Berks County Planning Commission Prepared by: The Berks County Planning Commission Penn Township Bernville Borough Jefferson Township Finalized: November 2008

Chapter 5

Population and Housing Characteristics

Introduction

The allocation of land uses and amount of services to be provided is based on the anticipated population to be served. This chapter will review the population and housing characteristics of Jefferson and Penn Townships and Bernville Borough, including past and present trends as well as projections for the future. This chapter includes discussion about expected housing increases and the anticipated demand for land zoned for residential use over the next ten and twenty years.

It is useful to begin by considering the pattern of residential development that has occurred so far. The growth pattern of the Region has been strongly affected by the surrounding areas. For the last couple of decades the pattern of growth has steadily been moving from the City of Reading and the center of Berks County. Future population growth will be contingent on the provision of a variety of community and public services to the communities such as public water and sewer services, highway improvements, agricultural preservation, and economic development initiatives.

There is an abundance of land available for new development in both Townships, but little land available in the Borough. Much of the land available is prime agricultural land. Since 2000, the Region has had several residential subdivisions proposed. Most of the developments have been built in Jefferson Township. Table 5.11 illustrates the number of building permits granted for new housing units from 2000 until 2006.

This chapter includes tables that show past and present conditions as well as projections of future growth. This information is intended to assist local officials in the decision-making process, as well as point out opportunities for intermunicipal cooperation. Information is presented from a school district and county-wide perspective so each municipality can better understand how it fits into the Region and what kind of growth is occurring in other neighboring municipalities.

Demographics

Summary of Basic Demographic Information

The U.S. Bureau of the Census presents the information from the decennial national census under a wide variety of parameters. The most basic information is provided below in Table 5.1. This information is analyzed in the text that follows. The Census Bureau defines "household" as "all the people who occupy a housing unit as their usual place of residence." This includes individuals who live alone as well as any combination of people who may reside together. In contrast, "family" is a *type* of household, and is

defined as "two or more people who reside together and who are related by birth, marriage, or adoption."

Table 5.1: Basic Demographic Characteristics

All figures from 2000 Census.

2000	JEFFERSON TOWNSHIP	PENN TOWNSHIP	BERNVILLE BOROUGH		
Total Population	1,604	1,993	865		
Total Households	580	714	351		
Total Families	445	572	250		
Racial Composition					
White	1,582 98.6%	1,941 97.4%	848 98%		
African-American	2 0.1%	15 .8%	5 .6%		
Hispanic (of any race)*	14 .9%	41 2.1%	12 1.4%		
Asian and Pacific Islander	4 0.2%	10 .5%	0		
Other, including mixed racial composition*	1 0.1%	11 .6%	7 .8%		
Household Characteristics					
Average number of persons	2.77	2.78	2.46		
Married-couple households	393 67.8%	516 72.3%	192 54.7%		
Total households with children under 18	212 36.6%	272 38.1%	121 34.5%		
Female-headed households	29 5%	24 3.4%	38 10.8%		
Single persons	104 17.9%	114 16%	80 22.8%		
Persons over 65 living alone	47 8.1%	51 7.1%	36 10.3%		
Age Characteristics					
Median age	38.8	39.4	36.3		
Percentage of persons under 19	466 29%	547 27.5%	226 26.1%		
Percentage of persons aged 19-34	232 14.5%	288 14.4%	184 21.3%		
Percentage of persons aged 35-44	267 16.6%	394 19.8%	142 16.4%		
Percentage of persons aged 45-64	422 26.4%	546 27.4%	174 20.1%		
Percentage of persons aged 65 and over	217 13.5%	218 11%	139 16.1%		
Income Characteristics					
Median household income	\$51,532	\$55,000	\$41,250		
Median family income	\$56,484	\$62,721	\$47,031		
Per capita income	\$22,584	\$22,621	\$19,038		
Persons below poverty line	116 7.3%	66 3.4%	73 8.2%		
Families below poverty line	16 3.6%	14 2.5%	19 7.5%		

SOURCE: U.S. Bureau of the Census, 2004.

^{*}When reporting Hispanic or mixed race, the total percentages may add to greater than 100% because individuals report more than one race.

[#] This data cannot be determined for the Region from available information.

Population Trends

Historical population trends are useful when planning for future growth in a community, and are a main component in the Joint Comprehensive Plan. The historical growth pattern of the Region will provide insight as to the intensity of population growth that may be expected throughout the entire Region in the future.

Table 5.2 shows the Penn and Jefferson Townships and Bernville Borough population trends from 1970-2004 and indicates the rate of change for each ten year period. Bernville Borough lost population until the 1990's but had almost 10% growth during the nest ten years. The population at the 2004 estimate was stable. Jefferson Township had greater than 50% growth during the 1970's, had 7.6% growth in the 1980's, has grown 13.76% in the 1990's and is expected to have 20% growth as of the 2004 estimate. Penn Township experienced a similar growth spike in the 1980's but has had less than 10% growth in 2000 and is expected to have around 6% growth at the 2004 estimate.

Table 5.3 shows the population trends for Berks County from 1970 to 2004. A comparison of County to Region growth shows that the Region's growth surpassed the County with the exception of the 1990's where the average growth of the County and Region was 11%. The 2004 projected growth rates are 4.82% for Berks County and 10% for Tulpehocken Area School District.

Table 5.2: Population Trends: Penn and Jefferson Townships and Bernville Borough 1970-2004

MINICIDAL ITIES			%		%		%		%
MUNICIPALITIES	1970	1980	Change	1990	Change	2000	Change	2004*	Change
Bernville Borough	848	798	-5.90%	789	-1.13%	865	9.63%	874	1.04%
Jefferson Township	854	1,310	53.40%	1,410	7.63%	1,604	13.76%	1,913	19.26%
Penn Township	1,205	1,254	4.07%	1,831	46.01%	1,993	8.85%	2,121	6.42%
Region	2,907	3,362	15.65%	4,030	19.87%	4,462	10.72%	4,908	10%

Source: U.S. Bureau of the Census

Table 5.3: Population Trends: Berks County 1970-2004

			%		%				%
MUNICIPALITIES	1970	1980	Change	1990	Change	2000	% Change	2004*	Change
Berks County	296,382	312,509	5.44%	336,523	7.68%	373,638	11.03%	391,640	4.82%

Table 5.4 reflects the population of the five surrounding municipalities of the Region. It is important to consider neighboring municipalities when planning land use and looking at projected growth. The majority of the adjacent municipalities had a greater increase in growth in the nineties than the Region. Lower Heidelberg Township, which borders a very small portion of Penn Township, had the highest rate of growth at 87.8% growth.

Centre Township, which borders the eastern side of Penn, had very similar population changes over the past two decades with roughly 50% increase in population. This table clearly shows that the past two or three decades have had significant growth in many of the surrounding municipalities, but according to the 2004 estimates, most of the municipalities will start slowing down in growth while Jefferson Township is expected to continue in double digit growth.

Table 5.4: Total Population (Region and Surrounding Municipalities) 1970-2004

	1970	1980	%change	1990	%change	2000	%change	2004*	%change
Bernville									
Borough	848	798	-5.90	789	-1.13	865	9.63	874	1.04
Jefferson									
Township	854	1,310	53.40	1,410	7.63	1,604	13.76	1,913	19.26
Penn									
Township	1,205	1,254	4.07	1,831	46.01	1,993	8.85	2,121	6.42
Bern									
Township	4,764	5,097	6.99	5,748	12.77	6,758	17.57	7,029	4.01
Centre									
Township	1,830	2,329	27.27	3,154	35.42	3,631	15.12	3,916	7.85
Lower									
Heidelberg									
Township	1,592	1,819	14.26	2,209	21.44	4,150	87.87	4,761	14.72
Marion									
Township	1,250	1,341	7.28	1,415	5.52	1,573	11.17	1,583	0.64
North									
Heidelberg									
Township	701	953	35.95	1,288	35.15	1,325	2.87	1,363	2.87
Tulpehocken									
Township	1,791	2,569	43.44	2,843	10.67	3,290	15.72	3,466	5.35
Upper Bern									
Township	930	1,159	24.62	1,458	25.80	1,479	1.44	1,580	6.83
Upper									
Tulpehocken	500		4= 20	4.000	44.50	4 40 7	4.7.00	4.600	- 46
Township	783	1,154	47.38	1,289	11.70	1,495	15.98	1,602	7.16
Berks									
County	296,382	312,509	5.44	336,523	7.68	373,638	11.03	391,640	4.82

Source: U.S. Census and Berks County Planning Commision

Table 5.5 shows 1990, 2000, and 2004 estimated total population, land area, and density information in persons per square mile for the municipalities that comprise the Tulpehocken Area School District. The Borough has a high density which is to be expected when you have a small land area. The low population densities for Penn and

Jefferson Townships are typical for rural areas. This trend appears to be changing, however, with the influx of housing proposals over the last few years.

Table 5.5: Population, Land Area, and Density: Tulpehocken Area School District

Municipality	Area (sq.mi.)	1990 Population	1990 Density*	2000 Population	2000 Density*	2004 Population	2004 Density*
Penn Township	19.1	1831	95.86	1993	104.35	2121	111.05
Jefferson Township	16.1	1410	87.58	1604	99.63	1913	118.82
Bernville Borough	.4	789	1972.5	865	2162.5	874	2185
Tulpehocken Area				4462		4908	
School District Total	35.6	4030	113.20	(11%)	125.34	(10%)	137.87

SOURCES: U.S. Bureau of the Census, 2004

Gender

Gender refers to the number of males and females in the population. The Region follows the traditional pattern of fifty percent (50%) males and fifty percent (50%) females in the population. The following table illustrates the breakdown of population by gender in the Region.

Table 5.6: Regional Gender

Gender 2000													
MALES FEMALES													
Municipality	Total Population Number Percent Number Perc												
Bernville Borough	865	410	47.4	455	52.6								
Jefferson Township	1,604	816	50.9	788	49.1								
Penn Township	1,993	1,017	51.0	976	49.0								
Berks County	373,638	182,956	49.0	190,682	51.0								

Source: U.S. Census Bureau

Persons by Age

Age statistics are important to assess existing and projected needs for housing, schools, recreation programs and other municipal services. Age trends also provide clues to whether an area is likely to gain or lose population in the future.

^{*}Persons per square mile.

Table 5.7: Persons By Age

	Bernvil	le Borough	Jefferso	n Township	Penn	Township	Berk	s County
	2000 I	Population	2000]	Population	2000 1	Population	2000]	Population
AGE	%	Number	%	Number	%	Number	%	Number
Under 5	6.4	55	6.3	101	5.1	101	6.2	23,032
5-9	9.1	79	7.9	127	7.4	147	7.1	26,574
10-14	6.8	59	7.8	125	9.0	180	7.2	26,874
15-19	3.8	33	7.0	113	6.0	119	7.1	26,494
20-24	4.9	42	3.8 61		4.7	94	5.9	21,972
25-34	16.4	142	142 10.7 171 9.7		194	12.7	47,454	
35-44	16.4	142	16.6	267	19.8	394	16.2	60,489
45-54	12.5	108	14.7	235	18.2	363	13.7	51,305
55-59	3.6	31	6.2	99	5.0	99	4.9	18,388
60-64	4.0	35	5.5	88	4.2	84	4.0	14,866
65-74	8.6	74	7.8	125	6.4	128	7.7	28,766
75-84	6.1	53	5.1	82	3.5	69	5.4	20,164
85+	1.4	12	0.6	10	1.1	21	1.9	7,260
Total	100.0	865	100.0	1,604	100.0	1,993	100.0	373,638

Source: U.S. Census Bureau

Race

Berks County has a small non-white population outside of the City of Reading. In 1990 non-white persons were 6.5% of the population of Berks County, .6% of Bernville, .6% of Jefferson Township and 1.6% in Penn Township. In 2000, Berks County almost doubled its percentage of non-white population from 6.5% of the population to 11.8% of the population. Jefferson Township more than doubled its percentage of non-white population and Penn Township almost doubled the percentage. Bernville remained relatively unchanged.

The Hispanic or Latino portion of the population of Bernville remained unchanged with six people that identified themselves as Hispanic or Latino in both 1990 and 2000. Berks County as a whole more than doubled the number of people that identified as Hispanic or Latino. Jefferson Township increased its Hispanic/Latino population by seven, although in 1990 there were only two persons identifying as Hispanic or Latino, and in 2000 there were fourteen. Penn Township increased almost 1.5% more than the previous time period. The racial characteristics are shown in Table 5.8.

Table 5.8: Racial Characteristics

		1990			2000	
		Non- Non-				
	All	White	Hispanic	All	White	Hispanic
Municipality	Persons	Persons	or Latino	Persons	Persons	or Latino
Bernville Borough	789	5	6	865	17	12
Jefferson Township	1,410	8	2	1,604	22	14
Penn Township	1,831	29	28	1,993	52	41
Berks County	336,523	21,962	17,174	373,638	44,178	36,357

Source: U.S. Census Bureau

Housing Trends

Table 5.9: Basic Housing & Occupancy Characteristics

	PENN TOWNSHIP 1990 2000 543 (86.9%) 653 (91.5%) 82 (13.1%) 61 (8.5%) 625 714 2.99 2.81 17 (2.6%) 30 (4.0%) (4.0%) (4.0%)			ERSON NSHIP		IVILLE OUGH	REGIO	N TOTAL
	1990	2000	1990	2000	1990	2000	1990	2000
Owner-occupied housing units			438 (85.2%)	498 (85.9%)	209 (63.9%)	244 (69.5%)	1,190	1,395
Renter-occupied housing units	_		76 (14.8%)	82 (14.1%)	118 (36.1%)	107 (30.5%)	276	250
Total Occupied Housing Units	625	714	514	580	327	351	1,466	1,645
Average household size of owner-occupied units	2.99	2.81	2.76	2.78	2.5	2.59	*	*
Average household size of renter-occupied units	2.56	2.51	2.66	2.71	2.26	2.17	*	*
Vacant housing units			37 (6.7%)	22 (3.7%)	13 (3.8%)			73
Total All Housing Units	(2.6%)		551	602 (+9.3%)	340	372 (+9.4%)	1,533	1,718 (+12.1%)

SOURCE: U.S. Bureau of the Census, 1990, 2000

^{*} This data cannot be determined for the Region from available information "Region" indicates both Townships and the Borough combined.

Table 5.9 above shows housing and occupancy rates from 1990 to 2000. Penn Township has experienced a 15.9% increase in total housing units, Jefferson Township's units have increased 9.3% and Bernville Borough shows a 9.4% increase. Penn Township has seen the largest increase in total housing units at 15.9%, and has seen a 25% reduction in renter-occupied housing units and a 76.5% increase in vacant housing units.

Bernville Borough had an increase in owner-occupied housing units and a decrease in renter-occupied housing units. The average household size of renter-occupied housing decreased from 2.26 to 2.17 while vacant housing units increased from 3.8% to 5.6%.

Jefferson Township's renter occupied and owner-occupied housing units percentage stayed relatively stable with no significant increase in either category. The average household size of owner-occupied and renter-occupied housing units both increased and the number of vacant housing units decreased.

There has also been a reduction in the average household size both in owner-occupied units and renter-occupied units. This trend of reduced averaged households has been continuing since the 1970's. Later marriages, more divorces, fewer children and more elderly families contribute to this trend in the United States. Table 5.10 shows the average persons per household in the Region. Both Jefferson and Penn Townships are slightly higher than the average of Berks County or the Borough of Bernville. This is typical of growing areas and young families. Smaller households are characteristic of older communities with more singles and elderly persons.

Table 5.10: Average Persons Per Household

	AVERA	GE PERSONS PER HOUS	EHOLD
MUNICIPALITY	1980	1990	2000
Bernville Borough	2.7	2.4	2.6
Jefferson Township	3.1	2.7	2.8
Penn Township	3.0	2.9	2.8
Berks County	2.7	2.6	2.6

SOURCE: U.S. Bureau of the Census, 1980, 1990, 2000.

Examining data on the Region's building permits can provide some insight into how the housing picture has changed since 2000. These are summarized below in Table 5.11.

Table 5.11: Issuance of Building Permits, 2000-2006

YEAR	BERNVILLE BOROUGH	JEFFERSON TOWNSHIP	PENN TOWNSHIP	TULPEHOCKEN SCHOOL DISTRICT
2000	3	14	23	84
2001	1	31	17	83
2002	9	35	8	92
2003	6	43	13	104
2004	0	39	10	77
2005	0	41	4	73
2006	0	25	14	58
Total	19	228	89	571

Source: Berks County Tax Assessment Office

The number of building permits issued is a good indication of housing construction trends. Jefferson Township had a much higher issuance of building permits than either Bernville Borough or Penn Township. Jefferson Township's total for the time period 2000–2006 was almost half of the building permits in the Tulpehocken School District. This table also supports the population increase that is shown in Table 5.2.

The number of new housing units is another indication of growth trends in an area. The fewer new housing units being developed the more stable your population is. The increase in new housing units between the period of 2000 to 2006 has been higher in Jefferson Township than either Bernville or Penn Township. 2006 saw less housing units being built than the previous years which could be an indication that growth has started to slow down and possibly stabilize.

Table 5.12: New Housing Units, 2000-2006

							N	lew Ho	ousir	ng Uni	ts 20	000-20	06							
Year		Single	Family		s	Semi-Detach (Duplex)				Town	house		Apartment					Mobile Home		
	Penn TWP	Jefferson TWP	Bernville	Region Total	Penn TWP	Jefferson TWP	Bernville	Region Total	Penn TWP	Jefferson TWP	Bern- ville	Region Total	Penn TWP	Jefferson TWP	Bernville	Region Total	Penn TWP	Jefferson TWP	Bernville	Region Total
2000	18	18	1	37				0				0								
2001	12	26	2	40				0				0						1		1
2002	11	39	11	61				0				0			2	2				
2003	13	39	6	58				0				0						4		4
2004	9	38		47				0				0					1	1		2
2005	4	38		42				0				0						3		3
2006	14	25		39				0				0								
Total Increase	81	223	20	324				0				0			2	2	1	9		10

Source: Berks County Planning Commission 2000 – 2006 and Berks County Tax Assessment Office

Planning Considerations

The data presented in this chapter validates the need to plan for future residential development. Although the Region's population increases from 1980-2000 have been modest, the recent influx of new development indicates that this trend is about to change. Factors for this high rate of growth include the ease of access to employment centers, the availability of sanitary sewerage and water supply, and a high quality of life.

Chapter 6

Regional Vision/Goals and Objectives

The Regional Vision is a statement of what we want the Region to be like in the future. It is arrived at through review of the results of the questionnaire sent out to residents of the Region, input from public meetings and interviews of residents, discussions of the Regional Comprehensive Planning Committee, and review by municipal governing bodies and planning commissions. The Vision is attained by setting goals; establishing objectives to achieve those goals; setting forth policies to meet the objectives; and identifying actions to implement the policies.

The Penn, Jefferson, Bernville Region will remain an attractive community in which to live and work, with a high quality of life. There will be a variety of landscapes: Bernville will be a regional center comprised of attractive residential neighborhoods; outstanding community facilities and services, such as parks, to serve all segments of the Region's residents; and retail, office and light industrial facilities, of appropriate scale, to serve and employ area residents. Revitalization efforts will continue, and enhance the small town atmosphere appreciated by the Region's residents. Penn and Jefferson Townships will have areas of suburban character near the Borough where regional public sewer and water facilities may be made available, but retain extensive rural areas and open space. Rural character in the Townships will be maintained through preserving farmland, rural landscapes containing woodlands and slopes, stream corridors, and the Region's water supplies.

Growth in the Region will be managed, balanced, moderate, and coordinated with the availability and adequacy of infrastructure. This will allow for retention of small town atmosphere, retention of rural character, protection of natural resources, and maintenance of a reasonable tax structure. Development which occurs will be attractive, respect traditional development patterns in the vicinity of the Borough, incorporate significant open spaces in the Townships, be in character of the Region, and environmentally responsible. Developers will analyze and mitigate impacts of development, provide appropriate landscaping and buffering, and address recreation and road improvement needs. Housing will be available in the Region for people in all stages of life.

Road corridors in the Region will be enhanced through programs to improve visual appearance, manage and coordinate access, address road intersections in need of improvement, and address parking needs. Development will be concentrated and well planned, rather than stripped along the Region's roads. Connectivity will be provided between new development and existing developed areas. Alternative modes of transportation, including pedestrian and bicycle systems connecting residents to activity centers such as Blue Marsh Lake and local recreation facilities, will be supported.

Comprehens	ipalities will co	to protect th	e character of	existing settle	ed areas, coord	linate
and enhance and protect r	community facili natural, historic, an	ties and served and cultural re	vices, facilitat esources.	e mobility thro	ughout the Re	gion,

Goals and Objectives

Goals are general statements indicating the desired direction for the communities, and reflect the long-term state they wish to establish or maintain. Objectives are more specific, relatively short-term policy guidelines for the municipalities to follow. Goals are achieved through accomplishment of one or more of the stated objectives. This Plan will identify goals and objectives of a regional nature, but because of some differences between the municipalities, some objectives are specifically aimed at one municipality and not the other.

It should be noted that the goals and objectives contained in this chapter, as well as the Policies contained within Part II of this Plan, support the *American Planning Association* concept of *Smart Growth*. Smart Growth encourages a more efficient use of the land by encouraging a larger share of growth within urbanized or previously developed areas already served by public infrastructure. Smart Growth reduces the pressure of development on farmland, open space, and environmentally sensitive areas.

Smart Growth can be interpreted in many ways by different people and organizations. The United States Environmental Protection Agency (EPA) has developed the following list of 10 **Smart Growth Principles** that have generally been accepted by planning professionals as a starting point:

- 1. Incorporate Mixed Land Uses
- 2. Take Advantage of Compact Building Design
- 3. Create a Range of Housing Opportunities and Choices
- 4. Create Walkable Neighborhoods
- 5. Foster Distinctive, Attractive Communities with a Strong Sense of Place
- 6. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas
- 7. Strengthen and Direct Development Towards Existing Communities
- 8. Provide a Variety of Transportation Choices
- 9. Make Development Decisions Predictable, Fair, and Cost Effective
- 10. Encourage Community and Stakeholder Collaboration in Development Decisions

STATEMENT OF REGIONAL GOALS

Natural and Scenic Resources

Goal: Protect and preserve the natural and scenic resources and beauty of the

region.

Historic, Architectural and Cultural Resources

Goal: Protect, preserve, and enhance the remaining historic, architectural, and

cultural resources and their surroundings.

Agricultural Resources

Goal: Preserve existing productive farmland for agricultural use and support the

continuation of agricultural and agricultural support operations in the

Region.

Open Space and Recreation

Goal: Provide for open space within the Region through the preservation of

natural resources and the development and retention of recreation areas and

parks.

Land Use

Goal: Manage, control, and guide development to preserve natural resources,

agricultural uses, and existing communities in order to retain a mix of small town atmosphere, suburban environment, and rural character within the

Region.

Circulation

Goal: Achieve a safe, efficient, multi-modal, and cost effective regional

circulation system which will enhance pedestrian and bicycle movement,

ease vehicular travel within the municipalities, minimize adverse impacts

on residential neighborhoods, enhance the safety, mobility and livability of road corridors within the region, and relieve congestion.

Economic Development

Goal:

Sustain and enhance the vitality of Bernville while identifying appropriate locations for environmentally responsible industrial, office, retail and service use which are appropriate in scale and character to the Region.

Housing

Goal:

Provide for a diversity of housing opportunities for the economic and demographic groups within the Region, in harmony with existing development and the historical and natural environments and in a manner that allows existing and potential residents of the region to live in the region throughout the life cycle.

Community Facilities, Services, and Development

Goal:

Provide necessary community facilities and services to the Region's residents in an efficient, cost-effective and quality manner within the financial resources of the municipalities, consistent with concerns to protect natural resources and accomplish managed, concentrated, and well-planned development.

Planning

Goal:

Identify and implement a variety of approaches, mechanisms, and tools appropriate for dealing with the challenges posed by growth within the Region.

STATEMENT OF REGIONAL OBJECTIVES

Natural and Scenic Resources

- Encourage new planting of trees within developments.
- Encourage the preservation of scenic road corridors and viewsheds along them through retention of the character of rural-agricultural areas.
- Establish standards and processes for developers to respect and develop in accordance with land suitability and carrying capacity, preserve and protect environmental resources and quality, preserve unique natural features, and analyze and mitigate impacts of development.
- Encourage improvement of degraded views along road corridors in the Region.
- Require development to be sensitive to natural drainage ways.
- Protect groundwater aquifers and recharge areas from pollution through standards in municipal ordinances.
- Protect watersheds and wellhead areas for municipal water supplies.
- Protect steep slopes within stream corridors.
- Monitor the protection of "protected" lands to encourage their continued protection.
- Protect stream corridors and their watersheds in the Region.
- Protect the night sky from excessive light pollution through lighting standards in ordinances.
- Protect wildlife habitats within stream corridors and woodlands.
- Maintain and initiate partnerships with conservancies to protect the Region's natural resources such as wooded areas and stream corridors.

•	Implement the recommendations and best management practices of the Tulpehocken Creek Watershed and Schuylkill River Watershed Stormwater
	Management Plans.
	6-7

Historic, Architectural and Cultural Resources

- Discourage inappropriate development in historic areas of the Region, require impact studies for development near historic resources, and require mitigation of any potential adverse impacts on historic resources.
- Maintain and initiate partnerships with the Berks County Conservancy and other organizations to protect the Region's built treasures.
- Provide for adaptive re-use of historic structures where appropriate.
- Encourage the identification, marking, and interpretation of historic resources in the Region, and foster increased public awareness of the history of the Region.
- Determine the role which the municipalities should play in historic preservation through land use ordinance incentives and regulations and efforts to create historic overlay zoning.
- Require new development to consider the history, architecture and development patterns of the municipalities in order to preserve the important historic and architectural resources of the Region.
- Discourage demolition by neglect and deterioration of historic resources.
- Identify existing contemporary sites which could be considered part of the historical or cultural heritage of future generations and work to preserve these sites for future generations.
- Support cultural events which celebrate the historic and cultural heritage of the Region.
- Consider historic overlay zoning which provides special protection for historic sites including farm houses, barns, mills, old schoolhouses, and churches.
- Maintain the regional survey of historic resources contained within the Berks County Greenway and Open Space Plan.

Agricultural Resources

- Avoid scattered development which causes conflicts with farming, such as additional vehicular traffic and land use incompatibilities, by designating growth and potential future growth areas.
- Discourage the conversion of productive farmland to non-farm uses.
- Protect farming operations in Agricultural Security Areas (ASAs) from incompatible, non-farming-related uses.
- Encourage participation in the "Clean and Green" Act (preferential tax assessment), the Berks County Agricultural Land Preservation Program (purchase of development rights), and private land preservation programs.
- Continue and consider opportunities for effective agricultural zoning in productive agricultural areas.
- Minimize costs to farmers caused by excessively restrictive regulations that could interfere with normal farming practices.
- Enhance the potential profitability of farming by facilitating appropriate accessory activities on farms.
- Encourage the maintenance and enhancement of local sources of supply for food processing businesses.
- Provide opportunities for agriculturally-related businesses to locate and expand.
- Ensure that roadways continue to accommodate agriculturally-related traffic.
- Establish policies regarding public sewer and water and other infrastructure improvements that do not encourage development pressure on designated agricultural areas.
- Encourage the designation of Agricultural Security Areas within areas designated for farmland preservation, but not within designated growth areas.

•	Encourage farmers markets where locally grown produce and goods can be offered for sale.
	6-10

Open Space and Recreation

- Identify methods for open space preservation, such as participation in County programs and cooperation with conservation-oriented agencies.
- Establish a greenway system within the Region pursuant to the Berks County Open Space and Greenway Plan.
- Preserve a network of woodlands, stream corridors, and agricultural lands in the Townships and Borough.
- Require residential development to emphasize open space conservation through permissible development options and ordinance requirements.
- Establish developer responsibilities for provision of park and recreation facilities within subdivision and land development ordinances.
- Identify designated growth areas near existing developed areas to reduce pressure on existing open spaces and agricultural areas.
- Encourage infill development in the Borough and between existing developed areas and maintenance and restoration of existing housing resources to reduce development of open space and agricultural areas.
- Plan infrastructure improvements so they do not encourage development in areas desired as open space or retention of rural-agricultural character.
- Where appropriate, require developers to provide open space and recreation areas for active and passive recreation and to coordinate open space systems among adjoining developments. Otherwise, require fees in lieu to implement recreation, park and open space plans.
- Encourage developers to provide both visual and physical access to the open space system.

Land Use

- Ensure that development occurs in ways that minimize degradation of natural and cultural environments through establishment of standards in zoning and subdivision and land development ordinances.
- Ensure that development occurs in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors, by designating designated growth areas and potential future growth areas.
- Direct residential, commercial, industrial, and institutional development, appropriate in scale and character to the community, to growth areas, where public sewer and water and transportation improvements are most likely and could be phased in concert with new development. Tie the type and intensity of development to the adequate provision of transportation, water, sewerage, drainage, parks and recreation, and community facilities by developers.
- Designate areas for future growth and development where such future development would be consistent with the protection of community character.
- Allocate sufficient land to accommodate projected population within designated growth areas.
- Minimize encroachment of development into areas recommended for retention of rural character and agricultural resource protection, and/or which lack supporting infrastructure and services.
- Minimize the conflict between non-residential and residential uses through proper allocation of land use on the Future Land Use Plan and utilization of performance and design standards and buffer yards in zoning ordinances.
- Accommodate retail and service development sufficient to meet the day-today retail and service needs of the region's residents at appropriate locations shown on the Future Land Use Plan.
- Maintain consistent and compatible land use along municipal boundaries pursuant to the Future Land Use Plan.

- Establish developer responsibilities for provision of community facilities and infrastructure improvements within zoning and subdivision and land development ordinances.
- Continue to allocate land use on a regional rather than municipality by municipality basis, as is done on the Future Land Use Plan.
- Manage growth through the establishment of efficient, compact patterns of land use and discourage haphazard, uncoordinated, leap-frog development. This is accomplished through encouraging growth to growth areas per the Future Land Use Plan.
- Promote infill and revitalization within the Borough, in conformity with the general character of the Borough.
- Improve the visual image of the Region at entranceways to the Borough and Township and along road corridors, such as the Route 183 and New Schaefferstown Road corridors.
- Permit appropriate development techniques for use within the Region, such as Conservation Development and Traditional Neighborhood Development.
- Establish appropriate policies for residential conversions within the Borough which will be consistent with retention of the character, stability, and upkeep of residential neighborhoods and provision of adequate parking facilities.

Transportation

- Encourage regionally-oriented traffic to utilize regional arterial highways and discourage this traffic from using locally-oriented collector roads.
- Eliminate deficiencies in the Region's roadway network pursuant to the Transportation Plan concepts of this plan.
- Identify and generally set priorities for projects which are appropriate for inclusion on Berks County's Long Range Transportation Plan and Transportation Improvement Program.
- Monitor opportunities and need for transit service in the Region with BARTA.
- Consider low-cost physical improvements to new roads and roads undergoing upgradings to accommodate bicyclists pursuant to municipal recreation plans and review of development plans.
- Improve the appearance of the Route 183 Corridor through adoption of design and performance standards.
- Establish roadway maintenance programs for each municipality to prevent deterioration and ensure safety of the existing road system.
- Manage access along roads pursuant to the Transportation Plan Concepts and adopted ordinance provisions.
- Work to enhance mobility for the elderly, the physically impaired, and those who do not own or lease an automobile.
- Address parking needs on Main Street in Bernville.
- Establish consistent signage policies along roads within the Region.
- Monitor impacts on roadway capacity from new development and require developers to address projected increased traffic volumes in the road system by improving the existing system.

•	Encourage the development of a bicycle and pedestrian network that enhances connections between neighborhoods and activity centers such as the Blue Marsh Lake trail system that can serve as a regional recreation amenity, and that can contribute to maintaining community health.
	6 15

Economic Development

- Encourage investment in Bernville, compatible with the character of the community.
- Discourage random or scattered industrial development patterns, which can produce environmental, traffic, aesthetic, and other problems. Direct industrial development to designated areas on the Future Land Use Plan.
- Establish developer responsibilities in providing infrastructure improvements when they develop within Subdivision and Land Development Ordinances.
- Reserve designated business development sites on the Future Land Use Plan to preclude potentially incompatible uses from foreclosing an eventual use for business.
- Discourage strip development of business uses along major roadways.
- Identify appropriate future uses for vacant commercial and industrial buildings and promote such uses through such efforts as revitalization programs in the Borough.
- Work to retain existing desirable area businesses and industries and identify strategies to attract desired businesses. Work with the local and county business associations and economic development agencies.
- Encourage improved access to data networks of economic development agencies.

Housing

- Maintain the integrity of existing residential neighborhoods in and around the Borough.
- Identify appropriate infill housing opportunities within the Borough and between housing developments in the Townships.
- Identify policies that can facilitate provision for the housing needs of elderly and physically impaired residents.
- Encourage use of the existing housing stock. Promote rehabilitation and renovation of existing housing in such need, through participation in appropriate federal, state, and county housing programs.
- Explore opportunities for regional administration of the Uniform Construction Code.
- Ensure that opportunities exist to promote the development of affordable housing that, in particular, meets the needs of the Region's current and likely future work force.
- Ensure that opportunities exist to promote the development of housing necessary to meet the Region's likely demographic make-up, with particular emphasis on retirees and younger households.
- Encourage owner occupancy of dwelling units in the Borough and Townships.
- Discourage absentee landlords.

Community Facilities, Services, and Development

- Support efforts of water supply and wastewater treatment authorities to plan ahead for expansion of capacities and extensions of the areas of service in accordance with growth projections and the establishment of future growth areas. Work to achieve consistency of Act 537 plans and infrastructure planning with this Plan and its land use element. Initially, this will involve coordination with the Borough and Townships in addressing regional approaches to provide sewer and water infrastructure.
- Provide an adequate supply and mix of parks, playgrounds, and other recreation facilities, both active and passive, to serve the existing and projected population of the Region, pursuant to the Future Land Use Plan and municipal recreation plans.
- Identify opportunities for regional cooperation and sharing of equipment, facilities and services.
- Require developers to adequately manage stormwater runoff and erosion and sedimentation in manners consistent with the protection of water resources in the area, the Tulpehocken Creek Watershed Stormwater Management Plan, and municipal ordinances. Encourage recharge of the water table as development occurs.
- Work toward safe, reliable water supply for all residents.
- Encourage utilization of public sewer and water facilities when development occurs in growth areas around Bernville, but coordinate land use and sewer and water planning so the extension of public sewer and water facilities is consistent with the land use and other goals and objectives of this Comprehensive Plan, such as protection of agricultural resources in the Townships. Do not plan for extension of sewer and water facilities into Agricultural Preservation areas.
- Continue to monitor the need for additional community, cultural and social facilities and services in the Region, such as expanded senior center facilities.

- Identify techniques and adopt zoning ordinance provisions to encourage attractive signage consistent with the character of the Region, particularly in the Route 183 corridor.
- Urge the Tulpehocken Area School District to work with municipalities when planning school facilities and bus routes so such planning can occur within the context of the goals and objectives of this Plan.
- Encourage the School District, churches, clubs, and other organizations in the community to allow use of facilities for community activities.
- Identify opportunities for cooperation among municipalities and the School District in providing facilities and programs to area residents.
- Identify activities which can bring people together and create community cohesion and create gathering places for community activities.
- Ensure that required infrastructure is constructed by developers.

Planning

- Coordinate planning and development efforts with adjacent municipalities, the Tulpehocken Area School District, the Berks County Planning Commission, and current and future County-wide planning efforts, and other County, State and Federal agencies.
- Create appropriate cooperative mechanisms to implement this Comprehensive Plan, including an on-going regional planning committee.
- Identify opportunities for continued intermunicipal cooperation and planning, such as regional sewage facilities planning and coordination of recreation planning.
- Support efforts for interregional and regional/county cooperation in addressing transportation, economic development, and community development issues. Actively participate in planning efforts for the County and other planning regions.
- Identify and pursue adequate funding of implementation actions listed in the Plan, with consideration of listed grant programs.
- Promote public-private cooperation in implementation of this Plan, such as involving businesses in revitalization efforts in the Borough.
- Establish a framework for education regarding planning issues in the region through the regional planning committee.
- Implement municipal functional plans such as recreation plans, and regional functional plans, such as a Regional Act 537 plan.

Chapter 7

Future Land Use and Housing Plan

The Future Land Use Plan is one of the most important elements of the comprehensive plan. It graphically brings together all of the chapters of the plan and evaluates all of the information that has been mapped and gathered during this planning process. Based on stated goals and objectives, this Plan will determine what future land uses would be most appropriate throughout the region and at what density. Factors such as existing land use, natural features, soil conditions, demographics, housing, economic development trends, road conditions, sewer and water capacities, and village and neighborhood vitality all play a role in the development of the Future Land Use Plan.

The Future Land Use Plan will serve as a guide for future municipal ordinance amendments and regulations. Municipal regulatory controls such as zoning, sewer and water facilities planning, transportation planning, and recreation planning should be based upon the recommendations of the Future Land Use Plan.

It is important to stress that the Future Land Use Plan is **not** a zoning map, nor does it change the zoning ordinances and maps that have been previously adopted by the municipalities in the region. It is a reference tool and a guide that may be used by municipal officials and planners when making decisions regarding future development.

Future Land Use recommendations are based on a variety of factors: The patterns of development and existing conditions within the Borough and Townships; the anticipated path of future growth in the Region; existing environmental conditions and natural resources; capacity of public facilities, such as sewer and water service, and other infrastructure; and goals of *Vision 2020*, the Berks County Comprehensive Plan

Land Use

Goal:

Manage, control, and guide development to preserve natural resources, agricultural uses, and existing communities in order to retain a mix of small town atmosphere, suburban environment, and rural character within the Region.

Objectives:

• Ensure that development occurs in ways that minimize degradation of natural and cultural environments through establishment of standards in zoning and subdivision and land development ordinances.

- Ensure that development occurs in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors, by designating designated growth areas and potential future growth areas.
- Direct residential, commercial, industrial, and institutional development, appropriate in scale and character to the community, to growth areas, where public sewer and water and transportation improvements are most likely and could be phased in concert with new development. Tie the type and intensity of development to the adequate provision of transportation, water, sewerage, drainage, parks and recreation, and community facilities by developers.
- Designate areas for future growth and development where such future development would be consistent with the protection of community character.
- Allocate sufficient land to accommodate projected population within designated growth areas.
- Minimize encroachment of development into areas recommended for retention of rural character and agricultural resource protection, and/or which lack supporting infrastructure and services.
- Minimize the conflict between non-residential and residential uses through proper allocation of land use on the Future Land Use Plan and utilization of performance and design standards and buffer yards in zoning ordinances.
- Accommodate retail and service development sufficient to meet the day-today retail and service needs of the region's residents at appropriate locations shown on the Future Land Use Plan.
- Maintain consistent and compatible land use along municipal boundaries pursuant to the Future Land Use Plan.
- Establish developer responsibilities for provision of community facilities and infrastructure improvements within zoning and subdivision and land development ordinances.
- Continue to allocate land use on a regional rather than municipality by municipality basis, as is done on the Future Land Use Plan.

- Manage growth through the establishment of efficient, compact patterns of land use and discourage haphazard, uncoordinated, leap-frog development. This is accomplished through encouraging growth to growth areas per the Future Land Use Plan.
- Promote infill and revitalization within the Borough, in conformity with the general character of the Borough.
- Improve the visual image of the Region at entranceways to the Borough and Township and along road corridors, such as the Route 183 and New Schaefferstown Road corridors.
- Permit appropriate development techniques for use within the Region, such as Conservation Development and Traditional Neighborhood Development.
- Establish appropriate policies for residential conversions within the Borough which will be consistent with retention of the character, stability, and upkeep of residential neighborhoods and provision of adequate parking facilities.

Actions:

- A. Update zoning maps and zoning district provisions, to reflect the Future Land Use Plan as necessary.
- B. Update Statements of Community Development Objectives contained in Township and Borough zoning ordinances to be consistent with this Plan.
- C. In zoning ordinances, provide for land development techniques designed to protect existing resources, provide open spaces, enhance streetscapes, and protect the character of existing villages.
 - 1. Conservation Zoning (Growing Greener Concept of Natural Lands Trust) in the Region:

Determine whether Conservation Zoning should be the default and/or encouraged method of development, with density disincentives given to other methods of development which result in less open space and protection of resources. The typical Conservation Zoning development process is:

a. Net out natural resources

- b. Establish maximum overall density
- c. Establish minimum substantial open space requirement
- d. Establish alternative methods of development
- e. Require important natural features and resources, such as scenic vistas, historic sites, agriculture, steep slopes, wetlands, and woodland, to be contained in open space
- f. Provide visual and physical access to open space areas
- 2. Lot averaging, as appropriate, which provides:
 - a. A maximum overall density
 - b. Flexibility in lot size, with a minimum established
 - c. Natural features and resources are contained in larger lots so houses can be sited away from them
- 3. Traditional Neighborhood Development (Neotraditional Development), and Village Extension and Village Design within the Villages. These methods promote the following concepts:
 - a. Creation of a sense of community
 - b. Pedestrian oriented design
 - c. Central community facilities
 - d. Public spaces
 - e. Shallow setbacks
 - f. Street trees
 - g. Alleys where appropriate
 - h. Compact development
 - i. Interconnected streets, closer to a grid pattern

- j. Historic development patterns of towns
- 4. Adopt corridor overlay zoning along major commercial roads, such as PA Route 183, Main Street in Bernville, and New Schaefferstown Road, to enhance the appearance of these corridors, enhance safety and traffic movement, and maintain economic viability. Such overlay zoning may address:
 - a. Coordinate landscaping, signage, lighting, street furniture, paving materials, design of site improvements, building façade and windows displays throughout the road corridors
 - b. Increase pedestrian and vehicular connections to adjoining properties and within properties
 - c. Increase size and quantity of landscape material
 - d. Integrate historic and cultural resources into development
 - e. Provide site amenities
 - f. Renovate building facades
 - g. Minimize curb cuts and unrestricted access
 - h. Provide more attractive signage
 - i. Locate parking to the rear and side of buildings where appropriate and feasible
 - j. Integrate architecture, landscaping and screening
 - k. Encourage pedestrian oriented design (e.g., sidewalks and benches)
 - 1. Encourage pedestrian oriented spaces in the Borough and villages
 - m. Screen loading areas, outdoor storage and dumpsters
 - n. Provide safe bus stops with shelters, with pedestrian connections to buildings

- D. In zoning ordinances, require areas for economic development to be developed through coordinated, attractive commercial and business parks and discourage additional strip commercial development.
- E. Consider allowing convenience commercial uses in or near residential developments to reduce traffic to and from commercial areas in the Region.
- F. The Townships and Borough should continue to monitor zoning along municipal boundaries to provide for compatible zoning districts.
- G. Within zoning district provisions, considering the entire Region as a whole, provide for the accommodation of housing in different dwelling types and at appropriate densities for households from all economic and demographic groups within the Region.
- H. Address architectural and related issues within zoning ordinances. For example:
 - 1. In some zoning districts, such as but not limited to neighborhood commercial zoning district, limits on building size will be appropriate to maintain existing character.
 - 2. In some zoning districts, emphasis should be placed on encouraging architecture consistent with existing community and/or architectural character.
- I. Additional zoning actions include:
 - 1. Requiring buffers and/or performance and design standards where there will be potentially conflicting uses.
 - 2. Requiring impact statements (environmental, traffic, services, fiscal, etc.) with requested zoning amendments requiring a zoning district change, to address the impacts of the requested amendment.
 - 3. Giving emphasis to density bonuses for development served by, or with potential to be served by public sewer and public water, rather than development served by package/private systems or individual systems.
- J. Update municipal Subdivision and Land Development Ordinances, as necessary. Options include:
 - 1. Require street furniture/pedestrian amenities as required improvements in the Borough and villages where appropriate.

2. Adopt appropriate refinements to implement the Growing Greener Conservation Zoning Concept.

If the Conservation Zoning concept is used, the design procedure is:

- Identify conservation areas
- Locate house sites
- Align streets and trails
- Draw lot lines
- 3. Require pre-design meetings between planning commissions and developers prior to preparation and submission of subdivision and land development plans.
- 4. Stormwater management ordinances prepared in accordance with Act 167 Stormwater Management Plans should be consistent with the objectives of this Plan.
- 5. Require landscaping and buffering of commercial and industrial uses to avoid conflicts with residential uses.
- K. Municipal Act 537 plans and water supply planning should be coordinated with this plan, particularly the Future Land Use Plan, to promote compact, efficient, orderly, and phased development within and contiguous to existing developed areas.
- L. Brownfield properties should be remediated and redeveloped as industrial uses. An authority should be formed to assist in the reclamation and administration of these properties.

Agricultural Resources

Goal

Preserve existing productive farmland for agricultural use and support the continuation of agricultural and agricultural support operations in the Region.

Objectives

- Avoid scattered development which causes conflicts with farming, such as additional vehicular traffic and land use incompatibilities, by designating growth and potential future growth areas.
- Discourage the conversion of productive farmland to non-farm uses.
- Protect farming operations in Agricultural Security Areas (ASAs) from incompatible, non-farming-related uses.
- Encourage participation in the "Clean and Green" Act (preferential tax assessment), the Berks County Agricultural Land Preservation Program (purchase of development rights), and private land preservation programs.
- Continue and consider opportunities for effective agricultural zoning in productive agricultural areas.
- Minimize costs to farmers caused by excessively restrictive regulations that could interfere with normal farming practices.
- Enhance the potential profitability of farming by facilitating appropriate accessory activities on farms.
- Encourage the maintenance and enhancement of local sources of supply for food processing businesses.
- Provide opportunities for agriculturally-related businesses to locate and expand.
- Ensure that roadways continue to accommodate agriculturally-related traffic.

- Establish policies regarding public sewer and water and other infrastructure improvements that do not encourage development pressure on designated agricultural areas.
- Encourage the designation of Agricultural Security Areas within areas designated for farmland preservation, but not within designated growth areas.
- Encourage farmers markets where locally grown produce and goods can be offered for sale.

Actions:

- A. To promote the long term economic vitality of agriculture, the Townships and Borough should identify and encourage the preservation of the most viable agricultural lands. Lands that should receive priority include:
 - Land that is protected by existing restrictions and/or easements against development, including lands that have had easements purchased or are adjacent to such lands;
 - Land that is composed of capability class I, II, or III as defined by the USDA.
 - Land that is currently in agricultural use.
 - Land that is included within an approved Agricultural Security Area..
- B. Penn Township should consider whether to enact Effective Agricultural Zoning regulations (consistent with Jefferson Township) for the lands designated as Agriculture on the Future Land Use Map. Effective Agricultural zones permit a wide variety of farming uses, including farm-related businesses and restrict nonfarm uses that can be disruptive to agricultural activities. Non-agricultural dwelling unit density is strictly limited to one dwelling unit per 20 to 25 acres average, with the homes required to be built on small lots.

Examples of effective agriculture preservation techniques include:

- Fixed System Formula allows one dwelling unit for a specified number of acres (1 du / 5 acres or 1 du / 25 acres);
- Sliding Scale Formula varies the number of permitted dwelling units based on the acreage of the entire parcel. The result is that larger parcels are permitted to have proportionately less dwellings than smaller parcels;

- Percentage-System Formula Permits only a percentage of the entire parcel to be subdivided or developed (example 10%).
- C. The Townships should encourage preserving agricultural operations through the following administrative actions:
 - 1. Work with local farmers to encourage participation in the Berks County Agricultural Easement Program.
 - 2. Encourage individual participation in other Purchase of Agricultural Conservation Easements Programs.
 - 3. Promote the inclusion of farms in Agricultural Security Areas.
 - 4. Support measures to relieve property tax burden for farmers.
 - 5. Limit extension of planned public sewer and water facilities to agricultural areas only when failing systems are involved.
 - 6. Limit non-farm uses which could cause conflicts with agricultural practices and/or require buffers for non-farm uses around the perimeter of farms.
 - 7. Allow conservation zoning development (Growing Greener) as an option in agricultural areas.
 - 8. Promote enrollment in Act 319 (Clean and Green) tax relief program.
 - 9. Allow for and give incentives to compact development and clustering of housing for development.
 - 10. Give disincentives to inefficient development techniques.
- D. The Townships and Borough should allow farmers to supplement income through home businesses, home occupations and farm related businesses; allow farm support businesses and businesses which market or process local farm products; establish appropriate controls on intensive agricultural operations; and permit appropriate recreational activities, such as hayrides, corn mazes, and festivals.

FUTURE LAND USE MAP

The principal benefit of multi-municipal planning is the opportunity to coordinate land uses among the participating municipalities. Even if the implementation process does not include a joint zoning ordinance, much is gained if the individual ordinances define land uses in the same way. The following text is *not* recommended ordinance language, but indicates the type of use and general function of each land use identified on the Future Land Use map.

While it is not required to specify lot sizes in the Comprehensive Plan, doing so makes it much easier to draft the implementing zoning ordinances. The target densities for every category should be used as a starting point when amending zoning district requirements. Areas with recommendations for higher density development are contingent on the availability of public sewer and water service.

The Draft Future Land Use Plan Map for the Penn, Jefferson, Bernville Joint Comprehensive Plan, Figure 7.1, includes the following Land Use Categories:

- Agricultural Preservation
- Rural Residential
- Low Density Residential
- Medium Density Residential
- Village Residential
- Economic Development
- Industrial
- Public Facilities / Open Space and Recreation
- Town Center

GROWTH AREAS

The Pennsylvania Municipalities Planning Code introduced the concept of Designated Growth Areas, which are regions within a multi-municipal plan that preferably includes or is adjacent to existing developed areas or villages. In Growth Areas, residential and mixed use development is permitted or planned for at densities of more than one unit per acre, commercial, industrial and institutional uses are permitted or planned for, and public infrastructure services are provided or planned. The intent of the Designated Growth Area is to provide for orderly and efficient development to accommodate the projected growth of the area within the next 20 years.

Berks Vision 2020 defines "Growth Areas" as mostly undeveloped at present. New growth must occur within the natural service areas of existing and proposed public sewer

and water systems, which can accommodate higher densities and greater variety of housing. Medium to higher density development will reduce the amount of land necessary for future growth, and will take advantage of the existing public facilities and infrastructure.

For the purposes of this Joint Comprehensive Plan, Growth Areas will be areas where public sewer and public water service is provided, or could be provided with reasonable ease (for example a tract of land within one quarter mile of the system). Low density residential areas are included as growth areas, however, they are not expected to have public sewer and water service in all cases.

FUTURE LAND USE MAP CATEGORIES

AGRICULTURAL PRESERVATION:

<u>Description</u> – Cultivation of the soil, forestry, and the raising of livestock for commercial or private purposes, including ancillary uses such as the residence of the farm operator. Commercial uses which directly support farm operations are typically allowed.

<u>Planning Objective</u> – Target critical areas where agricultural activities are practiced for future preservation. Uses related to agriculture including support businesses should be encouraged. Limited residential development may follow Conservation by Design Zoning techniques in some areas to preserve open space.

<u>Recommended Land Uses</u> – Cropland; Pastureland; Farm-related structures and businesses; Woodlands; Limited residential; Public and municipal uses.

Recommended Development Densities/Strategies – If residential development is permitted, it should be at lower average densities (one dwelling per 2 acres) and should not encroach on active farmland. Conservation by Design Zoning development, and effective agricultural zoning techniques such as sliding scale, where larger parcels have proportionately less dwellings than smaller ones or percentage-based lot calculation methods should be encouraged in this district. Public sewer and water service is not recommended for Agricultural areas unless public health issues are imminent. Participation in the Township's Agricultural Preservation Program should be encouraged.

RURAL RESIDENTIAL:

<u>Description</u> – These areas contain a mixture of agricultural, woodland, open space, and low density residential uses. Factors such as the presence of steep slopes, woodlands, wetlands, and/or floodplains limit the development potential of these areas.

<u>Planning Objective</u> – Accommodate limited very low density development; agricultural uses; rural resources; open space and recreation.

<u>Recommended Land Uses</u> – Limited Very Low Density Residential; Cropland; Pastureland; Open space; Farm-related structures and businesses; Woodlands; Public, Semi-Public; and municipal use.

<u>Recommended Development Densities/Strategies</u> – Larger lots of at least one to three acres or more per dwelling unit. Conservation Development techniques are encouraged in this district. Public sewer and water service is not recommended for Rural Conservation areas.

LOW DENSITY RESIDENTIAL:

<u>Description</u> - The lowest density of residential. The defining characteristic of these areas is that only single-family detached homes (and accessory uses) are permitted.

<u>Planning Objective</u> – To accommodate continued low density residential development where such development is occurring, in a setting that will continue to contain some rural characteristics such as woodland and open space.

<u>Recommended Land Uses</u> – Single Family detached dwellings; Woodlands; Parks/Open Space; Municipal Use.

Recommended Development Densities/Strategies – Density of approximately 20,000 square feet to one unit per acre. Higher density development may be allowed through Conservation Zoning development, provided that public sewer and water service is available. Conservation Zoning development should be used for developments of 8 acres or more. Public sewer and water service should be provided in developments where overall density is approximately 20,000 square feet or less.

MEDIUM DENSITY RESIDENTIAL:

<u>Description</u> - This area is recommended for higher densities than the Low Density Residential category, and allows narrower lots. Also, single-family semi-detached homes, townhomes, and mobile homes may be permitted as well as detached houses.

<u>Planning Objective</u> – Recommended areas where continued residential development should occur.

<u>Recommended Land Uses</u> – Single family detached dwellings; Single family semi-detached dwellings; Park/Open Space Uses.

<u>Recommended Development Densities / Strategies</u> – Maximum density range up to 5 units per acre (8,000 square foot lots), depending on the availability of public facilities. Lower densities if on-site facilities are used. Conservation Zoning development is appropriate in these areas.

VILLAGE RESIDENTIAL:

<u>Description</u> - These areas will be characterized by a mix of uses including residential uses and related convenience-commercial areas, second floor apartments, and professional offices at a variety of densities.

<u>Planning Objective</u> – Provide areas to encourage a mixture of residential and appropriate commercial uses within the village of New Schaefferstown and sections of the PA 183 Corridor. The critical element here is the creation of an environment where the commercial uses are compatible with existing residential uses. Commercial uses within these areas will be at a smaller neighborhood scale. Highway oriented uses, such as garages and service stations, are not recommended in these areas.

<u>Recommended Land Uses</u> – Offices; Small-scale retail and local commercial and personal service uses. Single family dwellings, semi-detached dwellings; Parks and Recreation; Public, institutional, and municipal uses.

<u>Recommended Development Densities/Strategies</u> – Density will vary depending on the use and the availability of public facilities, but it should mirror the existing development pattern and density. Traditional Neighborhood Design development may be appropriate within these areas to blend in with the Region's existing development pattern.

ECONOMIC DEVELOPMENT:

<u>Description</u> - This category includes most kinds of retail sales, businesses, light manufacturing, and highway-oriented businesses like those found along PA Route 183.

<u>Planning Objective</u> – Provide for appropriate commercial and business development in locations where a cluster of commercial uses exist. These uses should be environmentally friendly, with proper landscaping and buffering required to not impact adjacent residential development.

<u>Recommended Land Uses</u> – Highway oriented commercial uses such as retail; offices; supermarkets; multi-tenant shopping plazas; light manufacturing uses; automobile related uses.

<u>Recommended Development Densities/Strategies</u> – Lot sizes may vary, with density appropriate as needed by use, and type of sewer and water service. Access management on PA Route 183 should be stressed.

INDUSTRIAL:

<u>Description</u> – This category will be intended to accommodate a variety of industrial uses, due to access to major highways and availability of required utilities.

<u>Planning Objective</u> – Provide areas to accommodate a wide range of industrial uses.

<u>Recommended Land Uses</u> – Offices; Printing and Publishing uses; Warehousing and Distribution; Manufacturing; Food Processing; Transportation.

<u>Recommended Development Densities/Strategies</u> – One acre minimum lot size (smaller in the Borough) or larger as appropriate for use.

TOWN CENTER:

<u>Definition</u> - This area will be a mix of medium to high density residential, commercial areas, professional offices, and public facilities.

<u>Planning Objective</u> – Area intended to allow continued growth of the existing Town Center, providing services including the niche specialty shops. The critical element here is the creation of a flexible, pedestrian-friendly environment where the commercial uses are compatible with existing uses. Commercial uses within this district will be at a smaller scale and should include uses such as corner grocery stores, coffee shops, restaurants and cafes, specialty retail shops, and offices. A continuing pattern of high density residential is appropriate.

Target area for economic activity and re-development of vacant buildings with the goal of re-establishing the town center as a destination. Emphasis should be on protection of the character of the historic character of the area.

<u>Recommended Land Uses</u> - Medium to high density residential; small-scale commercial and specialty retail professional and government offices; conversion and loft apartments; parks and recreation; day-to day commercial uses.

Recommended Development Densities/Strategies – Density requirements should be flexible in this area, depending on the use. Lot sizes of 5,000 square feet or less average, provided pedestrian facilities are provided. Neo traditional development may be appropriate within these areas to create a sense of 'place', while discouraging automobile-dependent uses and large parking lots. Access management strategies are extremely important in this area and off-street parking areas should be to the side or rear of the structures. Buildings and sites with historic attributes should be targeted for preservation.

PUBLIC FACILITES / OPEN SPACE, PARKS AND RECREATION:

<u>Definition</u> - These are open space, recreational, and sensitive natural resource areas that should remain in such use for the foreseeable future, including the lands owned and operated by the Army Corps of Engineers.

<u>Planning Objective</u> – Provide for existing public and semi-public owned parks, facilities, and open space.

<u>Recommended Land Uses</u> - Parks; Pavilions; Greenways; Open Space; Natural Areas; Churches and cemeteries; Schools; Post Offices; Municipal buildings and facilities.

<u>Recommended Development Densities/Strategies</u> – Not recommended for private development other than low-impact accessory uses related to the recommended land uses.

Future Land Use Map Acreage by Category

Future Land Use	Acres
	(Approximate)
Agricultural	9,917
Town Center	50
Economic Development	610
Rural Residential	2,475
Public Facilities / Open Space and Recreation	3,073
Industrial	74
Village Residential	152
Low Density Residential	4,087
Medium Density Residential	1,402
Roads (not a category)	672
Total	22,512

HOUSING PLAN

The objectives for housing are to provide for adequate, safe and sound housing for present and future residents; to allow for a variety of housing densities, development patterns, and attractive residential housing types for all age groups in appropriately designated areas within the natural and service constraints of the Region; to provide for maintenance of the character of existing residential areas and housing stock through appropriate coordinated land use controls, and address the housing needs of the elderly and disabled in the community.

Provision for a variety of housing densities, housing types, and development patterns in appropriately designated areas is accomplished through the Future Land Use Plan. Maintenance of the existing housing stock and adequacy of new housing can be accomplished through enforcement of building codes and utilization of property maintenance codes.

Another concern is providing for housing for people trying to enter the housing market and housing for those families living and working in the Region. Allowing for a variety of housing types, including multiple family, and higher densities of development when public sewer and water is available, is important to addressing this need.

While housing affordability issues typically reflect market conditions, the Township and Borough can maintain construction and housing codes which are reasonably based on protecting public health, safety and general welfare, and which do not contain provisions solely to increase the luxury of dwelling units. This is facilitated by use of the Uniform Construction Code. Excessive standards in municipal regulations can unnecessarily raise housing costs.

New housing developments should be well-planned, attractive living environments. A variety of development options can be made available, such as conservation zoning development, traditional and village patterns, in addition to more typical single family development.

The existing character of residential areas can be maintained through appropriate zoning provisions and review of subdivision and land development plans.

Goal

Provide for a diversity of housing opportunities for the economic and demographic groups within the Region, in harmony with existing development and the historical and

natural environments and in a manner that allows existing and potential residents of the region to live in the region throughout the life cycle.

Objectives

- Maintain the integrity of existing residential neighborhoods in and around the Borough.
- Identify appropriate infill housing opportunities within the Borough and between housing developments in the Townships.
- Identify policies that can facilitate provision for the housing needs of elderly and physically impaired residents.
- Encourage use of the existing housing stock. Promote rehabilitation and renovation of existing housing in such need, through participation in appropriate federal, state, and county housing programs.
- Explore opportunities for regional administration of the Uniform Construction Code.
- Ensure that opportunities exist to promote the development of affordable housing that, in particular, meets the needs of the Region's current and likely future work force.
- Ensure that opportunities exist to promote the development of housing necessary to meet the Region's likely demographic make-up, with particular emphasis on retirees and younger households.
- Encourage owner occupancy of dwelling units in the Borough and Townships.
- Discourage absentee landlords.

Actions:

A. Establish and maintain adequate housing and property maintenance codes and zoning ordinance provisions as necessary to maintain the building stock and properties within the Region.

- B. Foster programs which encourage home renovation and rehabilitation in existing neighborhoods. Enact land use regulations that provide adequate opportunities for affordable workforce housing.
- C. Work with residents of the Region and regional taxing entities to identify programs and policies that will help residents maintain and enhance their properties, and meet housing expenses and retain their homes as owner-occupied single family residences.
- D. Regulate housing conversions through zoning provisions and require adequate parking to be provided.
- E. Provide for a variety of housing types and densities through zoning.
- F. Enact zoning regulations that provide incentives for senior housing in the Residential Areas on the Future Land Use Map. Consider appropriateness of such techniques or density incentives or overlay treatments.
- G. Encourage housing development in existing villages at densities consistent with the Future Land Use Map.

Capacity for Future Development

The Future Land Use and Housing Plan must provide documentation that there is a sufficient amount of available land for future development to accommodate the future population projected up to the year 2020. Table 7.1 illustrates the Region's population projections for 2010 and 2020. The projected increase for the Region from 2000 to 2020 is approximately a range of 5,818 to 6,528 persons. Comparing this to the 2005 population estimate, the Region can expect an additional 763 to 1,473 persons by 2020. Table 7.2 provides the projected need for additional housing units in the Region. In order to accommodate the projected population increase, there will be a need to provide a range of 273 to 527 additional housing units by 2020.

Jefferson Township's 2005 population estimate has already surpassed the BCPC (1,699-1,744) and DEP projections (1,801-1,915) for the years 2010 and 2020. The projections (Jefferson Township only) found in Table 7.1 were made by using the population trends from 1970 and 1980 to 2005 and extrapolating them out to 2010 and 2020 (to give an approximate growth rate range of 10.7% to 19.3%). This method will give us a reasonable projected population range for calculating fair share requirements for the Region.

Table 7.1: Population Projections; U.S. Census Bureau Estimated 2005 Population

	1970 CENSUS	1980 CENSUS	1990 CENSUS	2000 CENSUS	2005 EST	2010 PROJ (range)	2020 PROJ (range)
Bernville Borough	848	798	789	865	881	892- 916	948- 971
Jefferson Township	854	1,310	1,410	1,604	2,039	2,257- 2,432	2,498- 2,901
Penn Township	1,205	1,254	1,831	1,993	2,135	2,238- 2,392	2,372- 2,656
REGION	2,907	3,362	4,030	4,462	5,055	5,387- 5,740	5,818- 6,528

SOURCE: US Census; Berks County Planning Commission; PA DEP; SSM

Projection range for Bernville and Penn Twp, the top number is the BCPS projection, the bottom number is the DEP projection.

Jefferson Township projections were prepared as described above.

Table 7.2: Housing Need Projections

	2000 CENSUS	2005 Estimate	2010 PROJ (range)	2020 PROJ (range)
Bernville Borough	865	881	892- 916	948- 971
Borough housing requirement @2.6 persons/household** (2000 Census)	351 *	339	343- 352 (4 to 13 additional units)	364- 373 (25 to 34 additional units)
Jefferson Township	1,604	2,039	2,257- 2,432	2,498- 2,901
Jefferson Township housing requirement @2.8 persons/household** (2000 Census)	580*	728	806- 868 (78 to140 additional units)	892- 1,036 (164 to 308 additional units)
Penn Township	1,993	2,135	2,238- 2,392	2,372- 2,656
Penn Township housing requirement @2.8 persons/household** (2000 Census)	714 *	763	799- 854 (36 to 91 additional units)	847- 948 (84 to 185 additional units)
REGION POPULATION	4,462	5,055	5,387-5,740	5,818-6,528
REGION HOUSING REQUIREMENT (units)	1,645 *	1,830	118 to 244 additional units	273 to 527 additional units

SOURCE: US Census; Berks County Planning Commission; PA DEP 2006;

^{*}Total existing occupied housing units as of 2000

^{• **} The average household size has increased from 1990-2000, thus in some cases the requirement for units may decrease.

Table 7.3: Build Out Capacity for Population in Growth Areas

Future Land Use Plan Category	Approx. Available Undeveloped Acres	Available Acres Minus 20%	Likely Development Density Range	Likely Maximum Potential Range for Dwelling Units at Build Out	Likely Maximum Potential Range for Additional Persons*
Low Density	3,050	2,440	1-2	2,440-	6,832-
Residential			D.U./Acre	4,880 units	13,664
Medium Density	766	612	2-5	1,224-	3,427-
Residential			D.U./Acre	3,060 units	8,568
Village Residential	20	16	2-5	32-80	90- 224
			D.U./Acre	units	
Town Center	16	13	5-8	65-104	182- 291
			D.U./Acre	units	
TOTALS	4,350	3,031		3,761- 8,124 units	10,531- 22,747

^{*}Used 2.8 persons per dwelling unit, average for Jefferson and Penn Townships, the highest average in the Region. Source: US Census Bureau.

Table 7.3 calculates a maximum build out capacity range for population in the growth areas as from 10,531 to 22,747 additional persons, depending on the density of development. This figure does NOT include additional available acreage within the categories outside of the growth area such as agricultural preservation and rural residential, where undoubtedly there will be some additional growth, nor does it include non-residential categories. Even after excluding these categories, this build-out capacity far exceeds the initial projected 2000-2020 population increase for the Region. It is a safe assumption that the Region will have more than enough capacity to handle anticipated future growth for the life span of this Plan and beyond.

This Joint Comprehensive Plan recommends that the majority of residential growth occur within areas capable of providing public sewer and public water service. However, undoubtedly, there will be lower density development occurring outside of these areas. Between 2000- 2007, there were 336 building permits for housing units issued in the Region. These units count toward the Region's needs analysis, which shows that if the housing trend continues at this pace, the Region can expect to be well below the lower end of the calculated ranges.

⁻ assumed 20% of tract would not be available for inclusion within residential lots

Environmental Considerations for Future Development

As development occurs in the Region, particularly in the Agricultural areas, which contain the greatest extent of sensitive environmental resources in the Region, care must be taken to preserve and protect the resources identified within each tract of land. The following approaches should be taken, in a consistent manner within the Region, to development in these areas:

- An ongoing awareness of and sensitivity toward the natural resources of the area should be encouraged.
- Development should be concerned with geologic stability, soils suitability, groundwater supplies and stream flows.
- Groundwater resources should be protected against depletion and contamination.
- Methods of encouraging replenishment of the groundwater supply should be utilized.
- Streams, ponds and wetlands should be protected against pollution from point sources and runoff.
- Floodplains and poorly drained soils should be protected from encroachment.
- The loss of topsoil should be minimized.
- The retention and establishment of trees and other vegetation should be encouraged to control erosion, shade surface waters, control stormwater flow, create wind breaks, provide animal habitats and provide visual amenities.
- The preservation of scenic viewsheds and scenic road corridors should be encouraged.
- Steep slopes should generally be avoided.
- The protection, preservation and enhancement of historic resources should be encouraged.
- The adaptive reuse of historic structures should be encouraged where appropriate.

- Innovative land development techniques should be used to minimize land consumption, preserve ecosystems, preserve agricultural lands and preserve natural resources and open space.
- The provision of open space and recreation areas for active and passive recreation should be encouraged. Visual and physical access to the open space system should be provided.
- The coordination of open space and circulation systems among adjoining developments should be encouraged.
- A system of bicycle paths and sidewalks should be encouraged.
- Incorporation of resources into development plans should be encouraged.
- Flexible approaches to site design to recognize resources should be encouraged.
- Not permitting invasive species to be planted by developers as part of landscaping plans.

Recommended Development Concepts

The Action Plan contains recommendations for land development techniques and processes designed to protect existing resources, provide open spaces, encourage appropriate development which is consistent with existing development patterns, and enhance streetscapes. Because of the rural character of much of the Region and the existing population centers and Villages, techniques which are especially recommended include Traditional Neighborhood Development (TND) and Conservation Zoning Development. TND is particularly appropriate within and surrounding existing settlements such as the Borough and villages, and would be appropriate in designated growth areas in the Region. Conservation Development could be used to help preserve open space and agricultural resources when development occurs in more rural areas of the Townships.

The Elements of Traditional Neighborhood Design

- **Limited Size**: A village or neighborhood is limited to a 1/4 mile radius (up to 200 acres), or a five minute walk from the center to the edge.
- **Mixed Uses**: The inclusion of retail and commercial activity with residential uses brings the needs of life within walking distance for all ages and social groups. A variety of housing types is a standard element, including single family, duplex,

townhouses, and apartments over shops, which can bring safety and vitality to the town center.

- **Street Network**: A traditional grid or web pattern creates a more understandable system and more choices for travel routes, which is effective for pedestrians as well as the automobile.
- **On-Street Parking**: Helps to slow down traffic, acts as a buffer between pedestrians and moving traffic, and increases opportunities for drivers to find convenient parking.
- Alleys and Lanes: Give secondary access to property for deliveries: locating parking garages, utilities and garbage collection here preserves the beauty of the streetscape.
- Sidewalks and Pedestrian Paths: An emphasis on "walkability," or the needs of the pedestrian, makes destinations accessible to residents, including children and the elderly.
- **Borough Center**: A central focal point for community life, providing a special place for public events, and is the appropriate place for mixing retail, civic and business life.
- **Shallow Setbacks**: Placing buildings close to sidewalks creates a friendlier "outdoor room." Distances across streets, from building to building, do not exceed five times the building height.
- **Outbuildings**: Secondary structures normally located at a rear alley allow for parking, storage, workshop space, home offices or a rental apartment.
- **Porches**: Create spaces for a sociable transition from the public street to the private home and provide shelter and shade.
- **Building Types**: Designed to allow for adaptation from one use to another, as markets dictate, with an emphasis on local historical style.
- Open Space: A variety of types are included for specific needs, from the regional parks, to the neighborhood playground, to a green buffer, bringing nature into the human environment.

Conservation Zoning (Growing Greener)

Growing Greener¹ is a statewide community planning initiative which is designed to help communities use the development regulation process to their advantage to protect interconnected networks of greenways and permanent open space.

Each time a property is developed into a residential subdivision, an opportunity exists for adding land to a community-wide network of open space. Although such opportunities are seldom taken in many municipalities, this situation could be reversed fairly easily by making several small but significant changes to the Township's basic local land-use documents – the zoning ordinance and the subdivision and land development ordinance. Conservation Zoning rearranges the density on each development parcel as it is being planned so that only half (or less) of the buildable land is consumed by house lots and streets. Without controversial "down zoning" (decreasing the number of house lots), the same number of homes can be built in a less land-consumptive manner, allowing the balance of the property to be permanently protected and added to an interconnected network of community green spaces. This "density-neutral" approach provides a fair and equitable way to balance conservation and development objectives.

Currently, Penn Township is updating their zoning ordinance to include the Growing Greener Conservation Zoning concepts for selected zoning districts.

Infill Policies

Two of the objectives for land use are to encourage new residential development to take place as infill within and near the Borough and other existing settlements with infrastructure of adequate capacity and functionality and promote infill and revitalization within existing centers, in conformity with the general character of the existing centers. There are a number of strategies which can be used to promote infill. The following policies can be reviewed as a starting point in determining the most appropriate methods for use in the Region. Land consumption for new development can be minimized if development or redevelopment occurs on vacant or underutilized parcels within existing developed areas. Development costs can sometimes be reduced because of the accessibility of existing infrastructure and services.

Potential Infill Promotion Strategies

Zoning Strategies

1. Target and map areas for infill development. Identify parcels, developments, and existing vacant or underutilized buildings and lots.

¹ Source: Natural Lands Trust, Media, PA

- 2. Determine types of development desired.
- 3. Zone areas appropriately to allow desired land uses.
- 4. Create infill development opportunities overlay districts as necessary.
- 5. Consider whether more design flexibility in ordinances is necessary to achieve the desired end such as flexibility in setbacks, yard requirements, lot widths, and lot size.
- 6. Consider density bonuses to lowest acceptable lot size or highest intensity of use consistent with available sewer and water facilities.
- 7. Consider allowing nearby convenience services in designated economic development, mixed use, or infill overlay areas.
- 8. Apply appropriate standards to non-conforming lots which can allow reasonable development.
- 9. Where appropriate, consider well-designed, buffered mixed uses or dwelling types, if appropriate infrastructure is available.
- 10. Consider transfer of development rights with bonuses to target development areas from areas targeted for preservation or conservation.
- 11. Eliminate incentives to development in non-growth and non-targeted areas.

Subdivision and Land Development Strategies

- 12. Streamline procedures and permitting.
 - reduce delays and hearings
 - have expeditor
- 13. Review level of service standards (such as amount of recreation) or design standards (such as road widths) for appropriateness in each situation.
- 14. Consider appropriateness of incentives for infill projects
 - reduced development/permit fees
 - reduced impact fees
 - reduced infrastructure connection fees

15. Consider appropriateness of allowing/promoting re-subdivision or redesign of very low density tracts to more efficient, land conserving patterns if appropriate infrastructure is available.

Public Relations Strategies

- 16. Stimulate developer interest in infill development and educate consumer/public regarding benefits and availability of infill:
 - promotional/publicity campaign for infill
 - make parcel data available
 - establish cooperative demonstration project
 - seminars
 - training programs
 - design competition for demonstration project
- 17. Prepare neighborhood strategies with input from residents; cooperation with, involvement of, and information to existing residents.
- 18. Inform existing residents of projects, invite participation in review, hold project meetings with developers at initial stages.
- 19. Prepare appropriate protective design standards such as traffic calming, landscaping, vegetation retention or replacement, and permissible land uses.
- 20. Encourage lending institutions to be supportive of infill initiative in providing lending.

Municipal Financial Policies

- 21. Consider appropriateness of real estate transfer tax relief for purchase of properties in target areas.
- 22. Consider appropriateness of property tax abatement in target areas.
- 23. Foster programs which encourage building renovation and rehabilitation in existing neighborhoods.
- 24. Identify strategies for assembling parcels (with realtors and developers).

Municipal Infrastructure Policies

- 25. Identify need for Infrastructure improvements (new or improved roads, parks, utilities, streetscape improvements, drainage facilities, pathways).
- 26. Facilitate accessibility to community facilities and services (senior centers, community centers, etc.).
- 27. Locate municipal services near growth and target areas.

Official Map

Article IV of the Pennsylvania Municipalities Planning Code authorizes the governing body of each municipality with power to create an official map of all or a portion of the municipality which may show elements of the Joint Comprehensive Plan with regard to public lands and facilities, and which may include, but need not be limited to:

- 1. Existing and proposed public streets, watercourses and public grounds, including widening, narrowing, extensions, diminutions, openings or closings.
- 2. Existing and proposed public parks, playgrounds, and open space reservations.
- 3. Pedestrian ways and easements.
- 4. Transit right-of-ways and easements.
- 5. Flood control basins, floodways and floodplains, stormwater management areas and drainage easements.
- 6. Support facilities, easements and other properties held by public bodies undertaking the elements described in the Joint Comprehensive Plan.

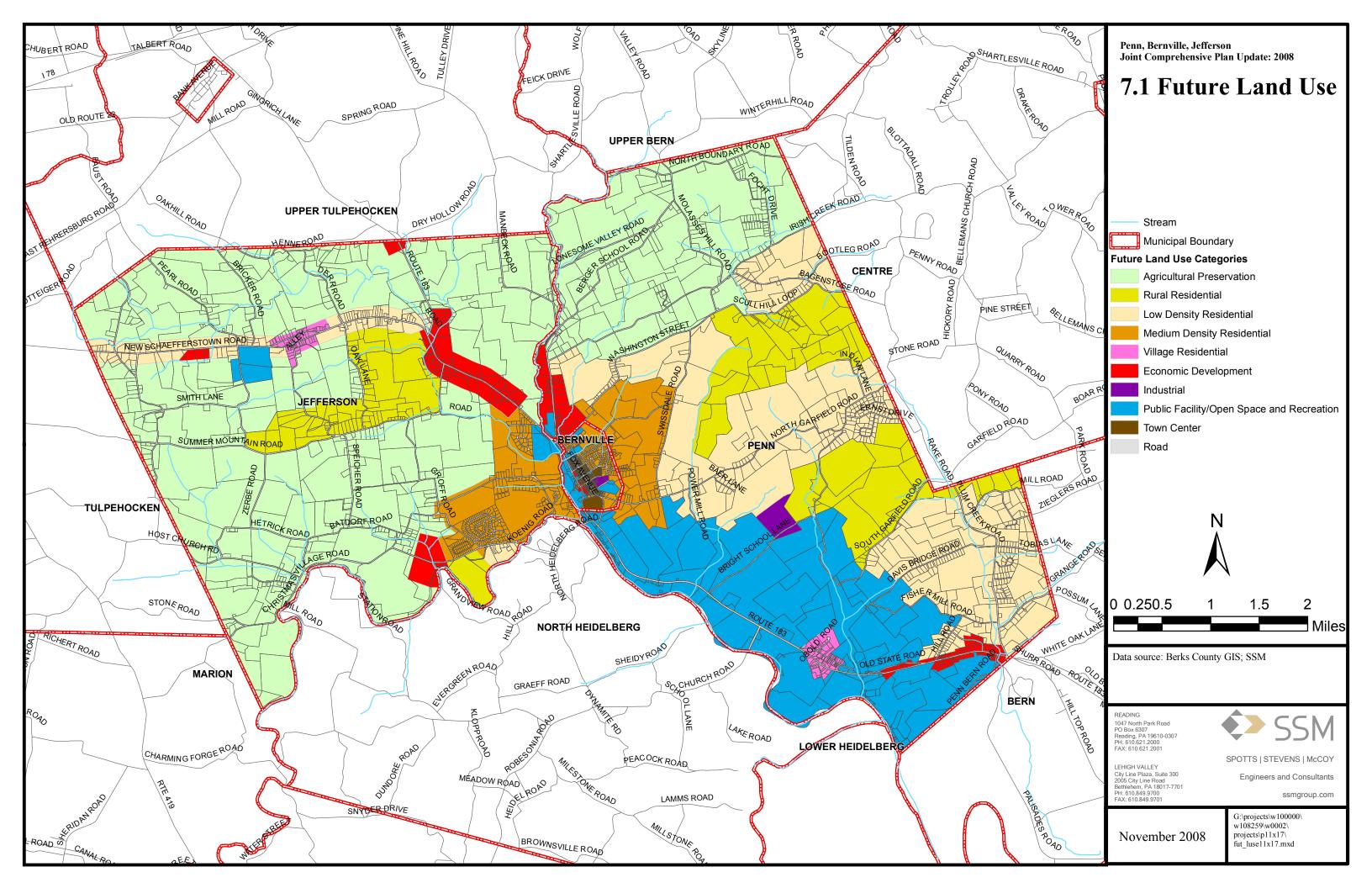
The Township Supervisors and Borough Council members may make surveys and maps to identify the location of property, traffic way alignment or utility easement by use of property records, aerial photography, photogrammetric mapping or other method sufficient for identification, description and publication of the map components. For acquisition of lands and easements, boundary descriptions by metes and bounds must be made and sealed by a licensed surveyor.

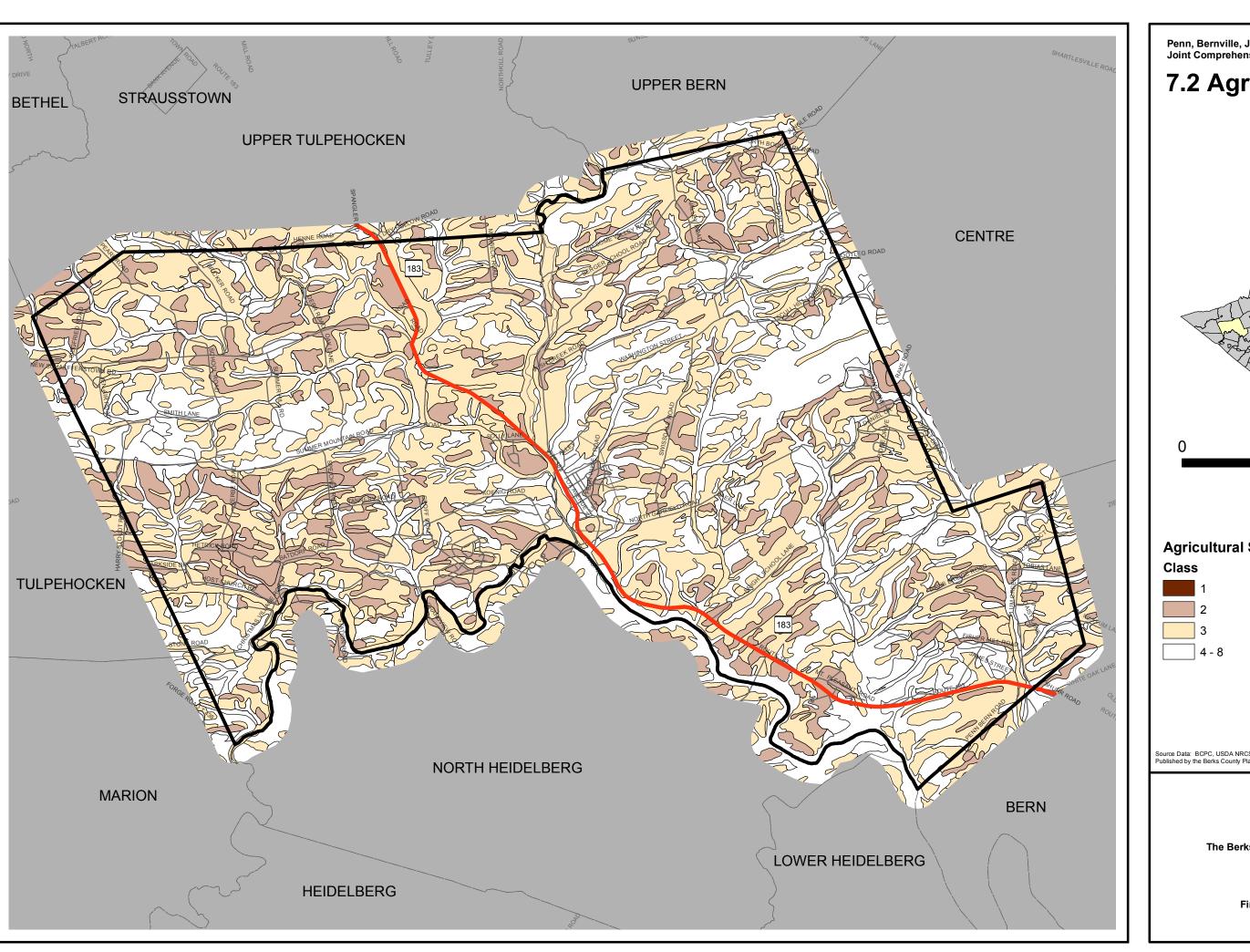
The adoption of any street lines or other public lands as part of the official map does not constitute the opening or establishment of any street nor the taking or acceptance of any land, nor does it obligate the municipality to improve or maintain any such street or land.

The adoption of proposed watercourses or public grounds as part of the official map does not constitute a taking or acceptance of any land by the municipality.

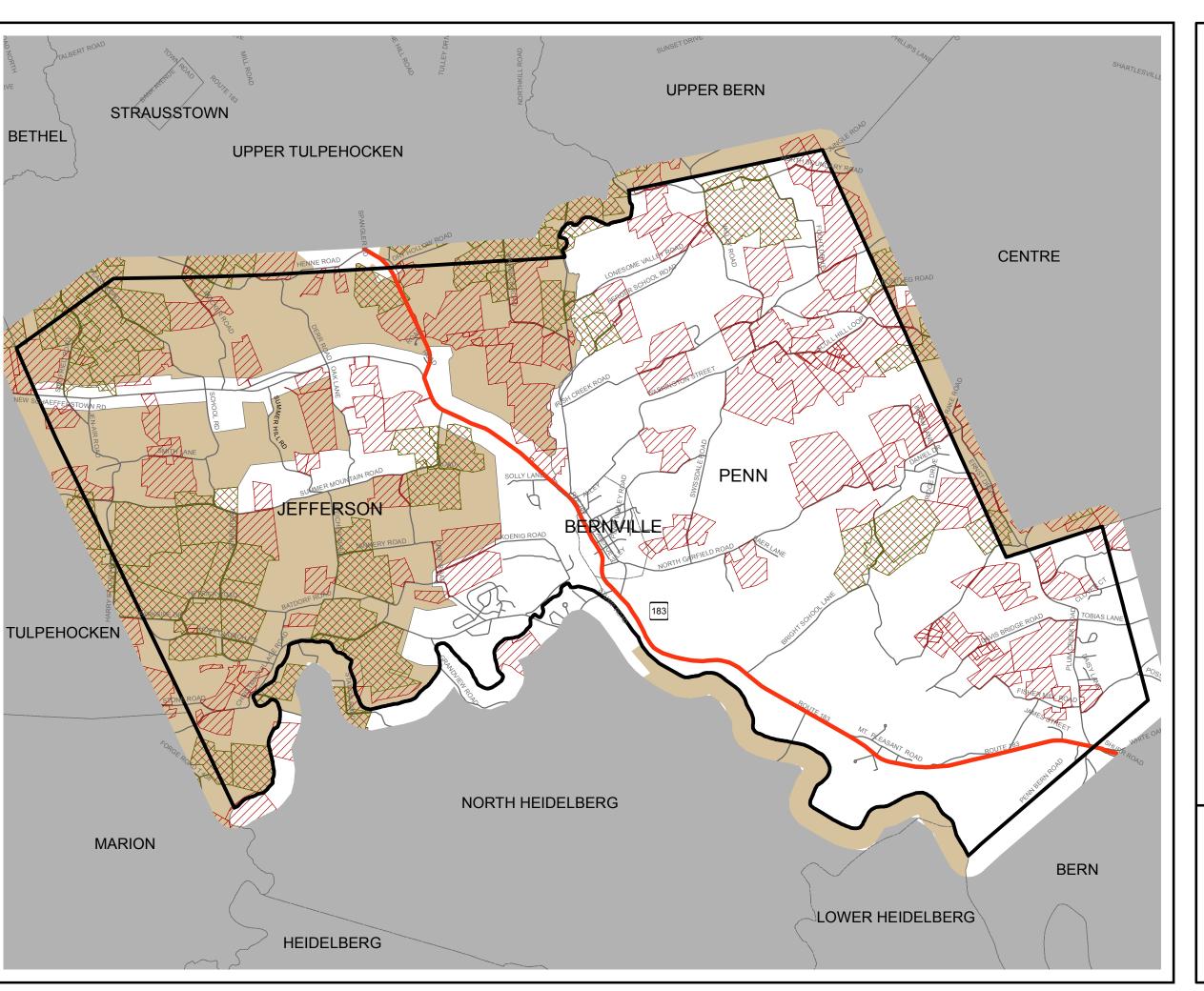
For the purpose of maintaining the integrity of the official map, no permit shall be issued for any building within the lines of any street, watercourse, or public ground shown or laid out on the official map. No person shall recover any damages for the taking for public use of any building or improvements constructed within the lines of any street, watercourse, or public ground after the same shall have been included in the official map, and any such building or improvements shall be removed at the expense of the owner. However, when the property of which the reserved location forms a part, cannot yield a reasonable return to the owner unless a permit shall be granted, the owner may apply to the governing body for the grant of a special encroachment permit to build.

The Townships or Borough may fix the time for which streets, watercourses and public grounds on the official map shall be deemed reserved for future taking or acquisition for public use. However, the reservation for public grounds shall lapse and become void one year after an owner of such property has submitted a written notice to the governing body announcing his intentions to build, subdivide or otherwise develop the land covered by the reservation, or has made formal application for an official permit to build a structure for private use, unless the governing body shall have acquired the property or begun condemnation proceedings to acquire such property before the end of the year.





Penn, Bernville, Jefferson Joint Comprehensive Plan Update 7.2 Agricultural Soils **Agricultural Soils** Plan Boundary Municipal Boundary Major Highways — Roads Source Data: BCPC, USDA NRCS, PENNDOT Published by the Berks County Planning Commission Prepared by: The Berks County Planning Commission Penn Township Bernville Borough Jefferson Township Finalized: November 2008



Penn, Bernville, Jefferson
Joint Comprehensive Plan Update
7.3 Agricultura

7.3 Agricultural Preservation



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		Miles

Agricultural Easements

Agricultural Security Areas

Effective Agricultural Zoning

Plan Boundary

Municipal Boundary

Major Highways
Roads

Source Data: BCPC, BCALPB, PENNDOT Published by the Berks County Planning Commission

Prepared by: The Berks County Planning Commission Penn Township Bernville Borough Jefferson Township

Finalized: November 2008

Chapter 8 Economic Development Plan

The Penn, Jefferson, Bernville Planning Region must support and create conditions for innovative economic and community development. A proactive approach to economic development is to increase the tax base as well as employment opportunities by expanding and diversifying the economic base. Residents of the Region expressed an interest in additional commercial and, to a lesser extent, industrial development in the area.

The citizen survey revealed that the stability and vitality of the Region's rural character and economy is a concern for area residents. The respondents are also concerned about the loss of rural areas to residential development. A coordinated economic development strategy involving smaller scale uses could be directed to the village areas of New Schaefferstown and Mt. Pleasant; and larger-scale enterprises could be directed toward the PA Route 183 Corridor in several locations, as well as the Borough which are suitable for appropriately scaled commercial and office uses. Industrial development should be directed toward existing industrially zoned areas of the Region.

The Costs of Land Use

As development has increased in and around the Region, costs associated with that development, including traffic and road maintenance, public protection, sewer and water system development and expansion, and public education have also increased. Ultimately, these costs result in higher taxes, which can be especially burdensome on those with fixed incomes. One way to address increased costs is to form cooperative efforts among the municipalities and volunteer organizations to identify ways to provide essential services more efficiently, and to eliminate duplication of services among agencies.

Continued residential development in the Region needs a balance of non-residential development to ensure a healthy tax base and economy. The Penn State College of Agricultural Sciences Cooperative Extension has published a study entitled, "Fiscal Impacts of Different Land Uses, the Pennsylvania Experience." In the study, eight Pennsylvania townships were analyzed to determine the fiscal impact of land uses. The ratios of revenues to expenditures were calculated for residential, commercial, industrial, and farm and open land. Residential land, on average, requires substantially more expenditures, mainly due to school expenses and infrastructure costs. In some cases, the expense to revenue ratio can be more than 2 to 1 for residential uses. Commercial, industrial, and farm and open land provides more revenue than they require in expenditures. These findings are consistent with those in other states, according to the study. A summary of this study can be found in Appendix B.

Encouraging Economic Vitality

Municipalities can support economic vitality through municipal ordinances. Amending zoning ordinances to allow additional commercial and industrial development, as well as adaptive reuse of older buildings is one method. Streetscape enhancement of commercial areas and entry or "gateway" enhancements are others. The Townships and Borough must take advantage of the public/private partnerships that exist and provide leadership to the business community to help establish a common focus for future economic development. Key facilities, such as the Blue Marsh Lake and Christmas Village should be promoted to attract economic development to the Region.

A healthy economy requires a balance between residential and non residential uses, preserving residential neighborhoods to support commercial areas and provide a workforce. Communities with high quality-of-life amenities attract more affluent and skilled workers and retain existing workforces better than communities with poor quality-of-life amenities. Preserving open space, architecture, and culture helps a community maintain a sense of place and attract people and businesses to the Region.

Employment by Occupation and Industry

A useful indicator when analyzing an employment base is a breakdown of where the Region's residents work. As discussed above, there is a national trend away from traditional occupations in the manufacturing sector to service and sales industries. In 2000, most people in the Region were employed in "manufacturing" with "educational, health, and social service" occupations following, and "retail" trade coming in a close third.

Table 8.1: Employment by Industry, shows the breakdown of Industry in the municipalities and Berks County.

Table 8.1: Employment by Industry

Employment by Industry Penn Township, Bernville Borough, Jefferson Township and Berks County 2000

	Penn Township		Bernville Borough		Jefferson Township		Berks County	
	Number	%	Number	%	Number	%	Number	%
Agriculture, forestry, fishing and hunting, and mining	54	4.8	3	0.6	45	5.5	3,215	1.8
Construction	64	5.7	24	5.1	66	8.1	10,591	5.9
Manufacturing	274	24.6	152	32.5	169	20.8	43,600	24.1
Wholesale trade	46	4.1	17	3.6	24	3.0	6,873	3.8
Retail trade	118	10.6	41	8.8	94	11.6	21,804	12.1
Transportation and warehousing, and utilities	80	7.2	29	6.2	51	6.3	8,896	4.9
Information	11	1.0	5	1.1	7	0.9	3,060	1.7
Finance, insurance, real estate, and rental and leasing	64	5.7	27	5.8	35	4.3	11,582	6.4
Professional, scientific, management, administrative, and waste management services	73	6.6	23	4.9	66	8.1	13,575	7.5
Educational, health and social services	181	16.2	61	13.0	144	17.7	33,496	18.5
Total	965	86.5	382	81.6	701	86.3	156,692	86.7

Source: U.S. Census

Employment by sector has changed significantly in the Reading Metropolitan Statistical Area over the past ten years. The retail sector has dramatically decreased 33.7% while government has increased 28.6%. Manufacturing was also down 29.3% and Construction was down 17.3%. Transportation and services increased 17.5% and 10.7%, respectively.

Table 8.2: Employment by Sector

Employment by Sector Reading Metropolitan Statistical Area (Berks County)								
August 1997 - November 2007								
ECONOMIC SECTOR	TOTA EMPLOY		CHANGE					
ECONOMIC SECTOR	November	August						
	2007	1997	Number	Percent				
Construction, Mining, Communication and								
Utilities	9,344	11,300	-1,956	-17.3				
Manufacturing	31,321	44,300	-12,979	-29.3				
Transportation	4,937	4,200	737	17.5				
Wholesale Trade	6,666	7,700	-1,166	-15.1				
Retail Trade	20,414	30,800	-10,386	-33.7				
Finance, Insurance, Real Estate	27,699	8,400	19,299	2.3				
Services	45,279	40,900	4,379	10.7				
Government	20,712	16,100	4,612	28.6				
Total Non-Agricultural Employment	166,372	163,700	2,672	16.3				

Source: PA Dept of Labor & Industry

Unemployment Rates in the Region

Unemployment rates are often a good reflection on the economy of a community. They are not the definitive indicator in the health of an economy. Several other factors can affect the unemployment rate such as: seasonal jobs, size of the workforce, national economic trends, and actions of large companies.

The Census Bureau publishes a municipal profile for each municipality within Pennsylvania that contains specific employment data. Table 8.3 shows the 2000 employment status for the Region and Berks County. The rate of unemployment in the Region is less than the average for Berks County, although both Bernville Borough's and Penn Township's rates were less than that of Jefferson Township. These are low unemployment rates as compared to Pennsylvania's rate of 6.1%.

Table 8.3: Employment Status - Population 16 years and over

2000 Employment Status	Bernville Borough	Jefferson Township	Penn Township	Berks County
Population 16 yrs. and over	703	1,223	1,508	291,683
In Labor Force	478	845	1,134	190,703
Number Persons Employed	468	812	1,114	180,881
Number Persons unemployed	10	33	20	9,671
Percent Unemployed	1.4%	2.7%	1.3%	3.3%

Seasonally adjusted unemployment rates take into account variations or trends in employment that make it difficult to tell whether the unemployment is part of a cyclical trend or if it is the result of changing economic conditions.

Table 8.4: Seasonally Adjusted Unemployment

SEASONALLY ADJUSTED UNEMPLOYMENT							
Pennsylvania Major	Market Areas, PA	A, USA					
Dece	ember-07						
AREA JULY 2007 UNEMPLOYMENT RATE (%)							
Allentown-Bethlehem-Easton MSA (Metropolitan	4.8						
Statistical Area)							
Altoona MSA	4.6						
Erie MSA	5.2						
Harrisburg-Lebanon-Carlisle CSA (Consolidated Statistical Area)	3.9						
,	5.7						
Johnstown MSA	5.7						
Lancaster MSA	3.6						
Philadelphia MSA	4.7						
Pittsburgh MSA	4.8						
Reading (Berks County) MSA	4.6						
Scranton/Wilkes-Barre MSA	5.3						
Sunbury-Lewisburg-Selingsgrove CSA	5.4						
State College MSA	3.8						
Williamsport MSA	5.3						
York-Hanover MSA	4.1						
Pennsylvania	4.7						
USA	5.0						

Table 8.5 shows the median annual household income for the Region and County, the percent of persons in poverty and educational characteristics. The median annual household income for both Jefferson and Penn Townships is higher than the County average of \$44,714 but the Borough of Bernville is slightly lower.

The percent of persons in poverty increased from 1989 to 1999 for all three municipalities in the planning region, as well as the County. Both Jefferson and Penn Townships had very little increase .6%, but Bernville had a 2.5% increase which was higher than Berks County at 1.6%.

Education levels increased for all municipalities in the Region. This can be explained by the continued increase in educational requirements for jobs and the proximity to places of higher education.

Table 8.5: Income and Education Characteristics

	Median Househol	Annual d Income	Perso	Percent of Persons in Poverty		cent elor's or higher	Percen Sch Gradu Hig	ool ates or
Municipality	1989	1999	1989	1999	1990	1999	1990	1999
Bernville Borough	\$27,132	\$41,250	5.7	8.2	7.1	9.5	65.9	74.2
Jefferson Township	\$36,016	\$51,532	6.7	7.3	15.3	19	71.9	79.9
Penn Township	\$38,185	\$55,000	2.8	3.4	15.5	19.2	79	85.6
Berks County	\$32,048	\$44,714	7.8	9.4	15.1	18.5	70	78

Source: Berks County Planning Commission

Economic Development Goal:

Sustain and enhance the vitality of Bernville while identifying appropriate locations for environmentally responsible industrial, office, retail and service use which are appropriate in scale and character to the Region.

Objectives:

- Encourage investment in Bernville, compatible with the character of the community.
- Discourage random or scattered industrial development patterns, which can produce environmental traffic, aesthetic, and other problems. Direct industrial development to designated areas on the Future Land Use Plan.
- Establish developer responsibilities in providing infrastructure improvements when they develop within Subdivision and Land Development Ordinances.
- Reserve designated business development sites on the Future Land Use Plan to preclude potentially incompatible uses from foreclosing an eventual use for business.
- Discourage strip development of business uses along major roadways.
- Identify appropriate future uses for vacant commercial and industrial buildings and promote such uses through such efforts as revitalization programs in the Borough.
- Work to retain existing desirable area businesses and industries and identify strategies to attract desired businesses. Work with the local and county business associations and economic development agencies.
- Encourage improved access to data networks of economic development agencies.

Target Areas

Economic development planning is not only the responsibility of the municipal officials. Local economic groups, non-profit organizations, business and property owners, and local and State legislators all have a stake in the economic well being of the Region. The Region is near several economic development groups such as the Berks County Industrial Development Authority, the Berks County Chamber of Commerce, and the Greater Berks Development Fund. These groups need to establish a consistent approach and common focus for future economic development and work closely with the public and private sectors to avoid duplication of efforts. The first step to improve the climate for economic development and develop a community wide vision is to identify the crucial or 'target areas' that present the most future economic development potential in the Region. The Region's most intense future commercial development should occur in two areas: along PA Route 183 in Jefferson Township, and in the Borough of Bernville

PA Route 183 Corridor – Jefferson Township

The commercial areas in Jefferson Township include an area bounded by Bernville Borough and Summer Mountain Road. The development potential for these areas includes modestly scaled office and retail stores, as well as ancillary convenience commercial and personal services uses. In the residential areas adjacent to the commercial areas, the uses should be less intense and adhere to design standards that encourage visual consistency along this corridor by regulating access management, signage, landscaping, setbacks, and streetscape improvements.

Bernville Borough

The Borough must strive to make the downtown a destination. Economic development follows people, so the downtown must become a gathering place. The downtown core must have a pedestrian-friendly design that accommodates informal gathering places mixed in with stores, restaurants, coffee shops, and office uses. Foster a positive image through special events, programs, music and art festivals, and holiday decorations. Promote the historic and cultural heritage of the Region as a means to promote tourism. Marketing tools such as banners, brochures, and restaurant/shopping guides should be produced. The Borough should apply for the DCED Main Street Program.

Village of New Schaefferstown, Jefferson Township

The Village of New Schaefferstown is appropriate for smaller scale commercial and business development, however, this development should consist of low-

impact, village-oriented land uses. Convenience commercial, antique shops, and other unique shops that bring character to the Village should be encouraged. Access management should be a key consideration, and any development in the Village should complement the larger scale development envisioned in the commercial areas of the PA Route 183 Corridor.

Village of Mt Pleasant - Penn Township

Mt. Pleasant should be targeted for a variety of low impact residential, neighborhood commercial and /or small office type uses. Future development should embrace the concept of 'village mixed-use' and combine neighborhood commercial, residential, and office development in the same tract. Along Mt Pleasant Road, the uses should be less intense than along PA Route 183, and concentrate on neighborhood and convenience commercial uses, as well as smaller scale service and professional offices.

Actions:

A. Zone areas appropriate for economic development pursuant to the Future Land Use Plan designations. Develop environmental performance standards. Prepare Specific Plans where appropriate, as per Section 1106 of the Municipalities Planning Code.

Emphasize appropriately scaled light industrial, health care, research and development, high technology, office and service development to supplement the existing commercial and industrial development in the Region.

Require new development to be designed and constructed to meet environmental performance standards, eliminate adverse impacts on adjacent land uses, and minimize highway access safety hazards.

- B. Maintain a dialog with businesses in the community to determine their needs and concerns in order to retain existing businesses and ensure their experience in the Region is positive.
- C. Work with telecommunications companies to ensure that adequate telecommunications facilities, including fiber optics, are available to businesses in the Region.
- D. Work with the Berks County Industrial Development Authority and the Greater Berks Development Fund to secure potential funding for land purchase and infrastructure improvements to support economic development in the Region.

- E. Refine zoning policies for home employment and no-impact home-based businesses.
- F. Create wireless internet hotspots in the Borough as a means to attract people to downtown.
- G. Inform economic development agencies of areas and buildings zoned and available for commercial and industrial development in the Region.
- H Investigate programs providing financial incentives for the re-use of old buildings and tax lien forgiveness to re-use buildings, and preserve historic sites. Work with PADCED.
- I. In recognition of the need to foster the economic viability of the Region, enhance the highway, rail, and air transportation systems within the Region pursuant to the transportation action items.
- J. Support the necessary legislation to authorize impact fees in addition to those which can now be charged. Work to establish consistent policies on use of impact fees within the Region.
- K. Investigate opportunities for streamlining processes for economic development that will enhance the economy and quality of life of the Region.
- L. Review opportunities created with the recent passage of Pennsylvania's Economic Stimulus Package, including such programs as Business in Our Sites and Tax Increment Financing Guarantee Program.
- M. The Borough should apply to the Main Street Program to improve the image of the Borough center.

ECONOMIC DEVELOPMENT PROGRAMS

Keystone Opportunity Zones (KOZ)

Keystone Opportunity Zones are defined as parcel- specific areas with greatly reduced or no tax burden for property owners, residents, and businesses.

Eligibility:

To be considered a Keystone Opportunity Zone, a site must have:

- Displayed through a vision/strategy statement how this property through targeted growth could impact the Region positively;
- Displayed evidence of adverse economic and socioeconomic conditions in the proposed zone such as high poverty rates, high unemployment rates, a high percentage of abandoned or underutilized property, or population loss;
- Passed binding resolutions or ordinances forgoing certain taxes; this includes school districts and county and municipal governments;
- Public and private commitment of resources;
- Linkages to regional community and economic development activities including Team Pennsylvania and initiatives under the DCED's Center for Community Building;
- A written plan discussing the implementation of quality school improvements and local crime reduction measures;
- And a demonstrated cooperation from surrounding municipalities.

Where to Apply – DCED Customer Service Center 1-800-379-7448

Enterprise Zones

Summary - The purpose of an Enterprise Zone is to promote job growth and to help municipalities take advantage of business expansion opportunities when they arise. EZ's improve the capacity of local governments and business communities by encouraging them to form public/private partnerships. These partnerships then boost business investment in the zone. Increased business investment, job creation, and sustained community self-sufficiency are the primary goals of the Enterprise Zone program.

Eligibility - Local governments, redevelopment authorities, nonprofit economic development organizations, and other nonprofit organizations and business district authorities.

Eligible Uses - Enterprise Zone competitive grants-to-loans can be used for up to 30 percent of the total project investment to acquire machinery and equipment. They are available for new business construction or building improvements, site improvements, infrastructure, and in some special cases, up to 40 percent of inventory or working capital needs. Competitive grants-to-loans also can be used toward the cost of preparing business lease space, especially for facilities with fiber optic wiring. Costs of public infrastructure development and hazardous waste testing may also be considered if the lack of conventional funding sources for such costs is documented. Competitive grants may not exceed 30 percent of total project investment, and one full-time job must be created or retained for each \$30,000 of loan capital.

Where to Apply - DCED Customer Service Center

Amounts - Planning grants can total up to \$50,000 (one time only). Basic grants can total up to \$50,000 for up to seven consecutive years. During this time period, basic grants may be increased up to \$75,000 on two occasions, if the entity is undertaking a cluster analysis or some other activity that uses analytical tools to enhance the zone's development plans. This is not an entitlement program. Need and demonstrated progress must be documented before receiving these grants on a yearly basis.

Competitive grants-to-loans can total up to \$500,000 and can be loaned to private sector firms in the zone.

Additional Programs / Opportunities

The Pennsylvania Economic Stimulus Package has been recently passed and includes the following economic development programs and potential funding sources for the Region:

- <u>Business in Our Sites</u> will offer flexible loans and grants for local municipalities and their economic development partners to create future business growth and attract opportunities through the acquisition and preparation of key sites for development. The program would provide communities with grants and loans of up to \$250,000 to pay for the reclamation of industrial land.
 - <u>Building PA</u> will provide funding for the development of real estate assets in the Commonwealth. Funds will be loaned to private investors and foundations who want to match funds to facilitate projects within the Commonwealth.
 - New PA Venture Guarantee Program will allow the Commonwealth to more actively work with the investment community by providing guarantees to venture

capital companies interested in Pennsylvania businesses. These guarantees will provide increased capital for Pennsylvania businesses to grow and create jobs.

- New PA Venture Capital Investment Program will provide capital to venture capital companies focused on Pennsylvania that agree to match those funds and invest in Pennsylvania businesses.
- <u>First Industries Fund.</u> First Industries will provide grants, low-interest loan financing, and loan guarantees for agriculture and tourism.
- 2nd Stage Loan Program will provide guarantees for bank loans to second-stage manufacturers and technology companies for working capital and other financing needs. Targeted toward manufacturing, advanced technology, and biotechnology, these funds will support growth in these sectors.
- <u>Tax Increment Financing (TIF) Guarantee Program</u>. Through TIF, communities can borrow funds for projects that will develop blighted areas and then repay those borrowed monies through the new tax revenues that will be generated as a result of the development. A combination of technical assistance and loan guarantee assistance will encourage small communities to use this program.
- <u>Infrastructure & Facilities Improvement Program</u> is a multi-year grant program that will provide grants to certain issuers of debt to assist with the payment of debt service.

The Pennsylvania Department of Community and Economic Development (DCED) is the primary contact for these programs.

Specific Plans

The Municipalities Planning code enables municipalities that have participated in a multimunicipal plan to adopt specific plans. As part of the intergovernmental cooperative agreements, municipalities can choose to adopt specific plans individually or jointly. The MPC defines a specific plan as:

"a detailed plan for non-residential development of an area covered by a municipal or multi-municipal comprehensive plan, which when approved and adopted by the participating municipalities through ordinances and agreements, supersedes all other applications."

A specific plan is a tool that can be used by municipal governments for the systematic implementation of a comprehensive plan. It establishes a link between the policies of the comprehensive plan and development proposals in a specifically defined area. Provisions of a specific plan shall include type, location and intensity of land uses, the design

capability of infrastructure, the standards for preservation of natural resources, regulation of land development, and financing of capital improvements. A specific plan can be used to define the exact location most appropriate for economic development activities to, particularly the village or commercial areas found on the Future Land Use Map, and protect it through ordinance that would supersede all other ordinances.

Specific plans do not create additional planning or permitting requirements. All data collection involved in creating a specific plan is information required as a prerequisite for approval and recording of a final subdivision or land development plan. The specific plan facilitates the planning and permitting, without having to wait for a development application. When an appropriate development proposal occurs, permitting will move directly to the final plan, because all requirements for a preliminary plan (such as sewer, stormwater, sediment and erosion, highway occupancy) will have already been met.

Main Street Program

Summary - The Main Street Manager Component is a five-year program designed to help a community's downtown economic development effort through the establishment of a local organization dedicated to downtown revitalization and the management of downtown revitalization efforts by hiring a full-time professional downtown coordinator. The Downtown Reinvestment and Anchor Building components use business district strategies to support eligible commercial related projects located within a central or neighborhood business district. This program has been merged into the New Communities Program.

Eligibility - Generally, a municipality is the applicant for the Main Street Manager Component. Municipalities and redevelopment authorities are the eligible applicants for the Downtown Reinvestment and Anchor Building components. In limited cases, a Main Street non-profit or Business District Authority with two years of audited records may apply for the funds.

Eligible Uses - For the Main Street Manager Component, administrative costs associated with the hiring of a coordinator and operating the office and design/facade are granted private property owners within the target area. For the Downtown Reinvestment and Anchor Building components, physical improvements that are supported by a plan with clearly documented public benefit.

Where to Apply – DCED Customer Service Center

Amounts - Total of \$115,000 over a 5-year period. For Downtown Reinvestment and Anchor Building components, up to \$250,000 or one-third of the total development cost. (Refer to DCED for 2008 amounts.)

Terms Match required for Main Street Component; For Downtown Reinvestment and Anchor Building components, leveraged funds should be committed to be competitive; Refer to the Program Guidelines

The key elements of programs to strengthen centers, such as Main Street Programs, are outlined below.

Improving the image by enhancing physical appearance, as appropriate

This includes enhancing the appearance of buildings, street lights, window displays, parking areas, signs, sidewalks, benches, landscaping, trash receptacles, utility poles and lines, and graphics. Design in the area should recognize existing desirable physical elements, be compatible with the area's character, and be unified.

• Securing consensus and cooperation among the groups that are involved in economic development

Parties which should be involved include Borough and Township officials, business people, bankers, real estate agents, customers, the media, residents of downtown, and civic groups.

• Promoting the Centers

The unique characteristics should be promoted to customers, investors, existing businesses, and potential new businesses. A positive image can be fostered through brochures, appropriate special events, and other programs.

• Strengthening the Economy of the Centers

If the economy is strong, it is possible to maintain and upgrade the buildings in the existing communities. Existing businesses should be helped to expand; new businesses should be recruited; and increased use of any underutilized buildings should be promoted.

Affecting Attitudes Towards the Centers

Consumers and investors have more positive attitudes toward downtown as they see changes taking place such as building improvement projects and new street furniture. Owners of buildings will be more likely to make improvements to their buildings.

Specific tasks to help maintain economic vitality can include:

- -- Helping businesses identify new sales opportunities
- -- Promoting the centers as cohesive shopping areas to market groups
- -- Listing potential new businesses
- -- Keeping track of prospective businesses
- -- Improving the quality of businesses by helping them be more customer responsive and competitive
- -- Having coordinated business hours that meet consumer needs. Encouraging businesses to work together
- -- Encouraging attractive window and interior merchandise displays
- -- Maintaining information on the centers
- -- Marketing and promoting businesses
- -- Conducting an advertising campaign
- -- Helping to maintain existing businesses and encouraging patronage of those businesses
- -- Working with financial institutions to establish loan pools
- -- Maintaining a good working relationship between public and private sectors
- -- Finding new uses for any underutilized or vacant buildings
- -- Recruiting businesses to complement the retail and service mix
- -- Identifying sources of grants for physical improvements or providing matching grants for such improvements
- -- Assuring promotional activities create a consistent, positive image for the downtown, consistent with community characteristics and history.
- -- Scheduling events to bring people into the community on a regular basis
- -- Managing parking spaces

- -- Managing growth within the entire Region
- -- Working with developers to assure attractive, well-planned development
- -- Enhancing alternatives to auto traffic, including enhanced transit service and enhanced transit hubs with shelters, parking areas, and pedestrian walkways
- -- Landscaping standards
- -- Enhancing the pedestrian system and coordinating with open space and recreation and greenway planning
- -- Managing road corridors
- -- Protecting remaining natural resources
- -- Encouraging appropriate mixed use
- -- Incorporating open space, natural features and public spaces so they are visible and accessible, in order to humanize areas and providing reminders of why the Poconos area has attracted so many residents and visitors
- -- Addressing parking needs
- -- Recognizing the assets and defining characteristics of a center and enhancing and building upon those features. Examples are building stock, variety of available services, walkability, and traditional development patterns.

Chapter 9

Community Facilities Plan

Community facilities include public buildings and services that support municipal government and functions, providing for the everyday needs of residents. They include services such as: sanitary sewerage and water supply, emergency services, police and fire protection, stormwater management, trash collection and recycling, public transportation, libraries, schools, community centers, and recreation facilities. The extent to which these services are available depends upon factors such as population, tax base, the traffic circulation system, and location within the Region. Community facilities should be considered resources with limited capacities that are to be provided in those places where they can serve the residents of the region most efficiently.

Facilities and public services can be provided in a variety of ways. Issues such as the existing and projected needs of the residents, the philosophy of municipal officials, financial resources, and whether similar services are offered by other agencies in the Region all play a role in determining which services are most needed. Financing may be provided through resident user fees, tax revenue, state or federal funding, or through contracts with private or quasi-public agencies, thereby tailoring activities and expenditures for specific needs. Ultimately, a comprehensive approach to providing such facilities and services allows municipal governments to evaluate the cost of these facilities and services and develop an approach for providing them. Figure 9-1, the Community Facilities Map, depicts the location of the Region's facilities.

Cooperative Efforts

The municipalities should continue to review opportunities for regional cooperation in the provision of services and facilities as both the demand and the cost of such services increase. The municipalities can also work with the school district in providing facilities and programs to area residents. A number of the objectives found later in this chapter relate to cooperative efforts.

Potential opportunities for regional cooperation include purchase or use of equipment, such as road equipment or road salt, emergency services planning and coordination, police, fire, and ambulance services, recreation facilities and programs, and building code administration.

Volunteer fire companies are finding it increasingly difficult to get personnel in adequate numbers. The municipalities should encourage cooperation among the volunteer departments, perhaps in areas such as recruiting and acquisition of compatible equipment in order to meet the fire protection needs of the community. Where necessary, water systems within the region should be expanded to address emergency situations and provide service to residents. Water planning should assure that water will be supplied at

adequate volume and pressure to meet fire protection needs. Similarly the location and number of fire hydrants should also be planned.

If new school facilities are proposed by the Tulpehocken School District, the municipalities should work with the District to assure that school facilities are located to be consistent with the requirements of the Future Land Use Plan.

To facilitate implementation of this Joint Comprehensive Plan and to address the needs and possibilities for cooperation in the future, the municipalities should formalize the joint planning process that began with the formation of the Joint Municipal Planning Committee. A committee comprised of representatives from all municipalities should be created that will meet on a regular basis to review this Comprehensive Plan and to identify what steps should be taken to promote its implementation. The concept of using committees composed of area residents to address major issues of concern within the area may be used on other issues.

Community Facilities, Services, and Development

Goal:

Provide necessary community facilities and services to the Region's residents in an efficient, cost-effective and quality manner within the financial resources of the municipalities, consistent with concerns to protect natural resources and accomplish managed, concentrated, and well-planned development.

Objectives:

- Support efforts of water supply and wastewater treatment authorities to plan ahead for expansion of capacities and extensions of the areas of service in accordance with growth projections and the establishment of future growth areas. Work to achieve consistency of Act 537 plans and infrastructure planning with this Plan and its land use element. Initially, this will involve coordination with the Borough and Townships in addressing regional approaches to provide sewer and water infrastructure.
- Provide an adequate supply and mix of parks, playgrounds, and other recreation facilities, both active and passive, to serve the existing and projected population of the Region, pursuant to the Future Land Use Plan and municipal recreation plans.
- Identify opportunities for regional cooperation and sharing of equipment, facilities and services.

- Require developers to adequately manage stormwater runoff and erosion and sedimentation in manners consistent with the protection of water resources in the area, the Tulpehocken Creek and Schuylkill River Watershed Stormwater Management Plans, and municipal ordinances. Encourage recharge of the water table as development occurs.
- Work toward safe, reliable water supply for all residents.
- Encourage utilization of public sewer and water facilities when development occurs in growth areas around Bernville, but coordinate land use and sewer and water planning so the extension of public sewer and water facilities is consistent with the land use and other goals and objectives of this Comprehensive Plan, such as protection of agricultural resources in the Townships. Do not plan for extension of sewer and water facilities into Agricultural Preservation areas.
- Continue to monitor the need for additional community, cultural and social facilities and services in the Region, such as expanded senior center facilities.
- Identify techniques and adopt zoning ordinance provisions to encourage attractive signage consistent with the character of the Region, particularly in the Route 183 corridor.
- Urge the Tulpehocken Area School District to work with municipalities when planning school facilities and bus routes so such planning can occur within the context of the goals and objectives of this Plan.
- Encourage the School District, churches, clubs, and other organizations in the community to allow use of facilities for community activities.
- Identify opportunities for cooperation among municipalities and the School District in providing facilities and programs to area residents.
- Identify activities which can bring people together and create community cohesion and create gathering places for community activities.
- Ensure that required infrastructure is constructed by developers.

Municipal Buildings

The Jefferson Township Municipal Building is located at 5 Solly Lane, Bernville, PA 19506. It consists of an administrative office, maintenance building, and salt shed. There are plans to build a new Township Building in the Spring of 2008 that will include a meeting room/conference room with a capacity of approximately 40 persons, and administrative offices.

The Penn Township Municipal Building is located at 840 N. Garfield Road, Bernville, PA 19506. It consists of an administrative office, a public meeting room with a capacity of approximately 40 persons, a public works garage, and an equipment/salt storage shed.

The Bernville Borough Municipal Building is located at 6602 Bernville Road, Bernville, PA 19506. It consists of a Borough office with administrative offices, an office for the water authority, police offices, and a public meeting room that can accommodate approximately ten guests plus eleven seated at the table. Additionally, there is a Borough garage located in Umbenhauer Park.

PUBLIC SEWAGE TREATMENT AND DISPOSAL FACILITIES

Jefferson Township

Jefferson Township has two sewer treatment facilities. North Heidelberg Sewer and water Company, a private treatment system that serves a small portion of Jefferson Township, and Tulpehocken School District sewer system, which could be expanded to provide additional service.

The remainder of Jefferson Township is served by on-lot disposal systems. The Township does not require pumping and maintenance of the on-lot systems on a regular basis.

Penn Township

A portion of Penn Township is serviced by the Bernville Borough Authority. The remainder of the Township is served by on-lot disposal systems. The Township does not presently require pumping and maintenance of the on-lot systems on a regular basis.

Bernville Borough

Bernville Borough has sewer service through the Bernville Borough Authority. The plant is located in the southwest corner of the Borough, west of Route 183.

Figure 9-2, the Sewer Service Areas Map, illustrates the sewer service areas.

PUBLIC WATER SUPPLY FACILITIES

Jefferson and Penn Townships do not currently have public water service. Water is provided by private wells with two (2) exceptions:

- A small portion of Penn Township is supplied by Bernville Borough Authority;
- A small portion of Jefferson Township is supplied by North Heidelberg Sewer and Water Company.

Bernville Borough Authority supplies water to Bernville Borough.

Bernville Borough Authority has three wells, one in Bernville and the other two in Penn Township.

Figure 9-2, the Sewer Service Areas Map, illustrates the water service areas.

EDUCATIONAL FACILITIES

Tulpehocken Area School District covers five municipalities, providing public education for Penn, Jefferson, Tulpehocken, Bethel Townships and the Borough of Bernville residents. District-wide student enrollment for 2006-2007 school year was 1673 students. Schools in the Tulpehocken Area School District include:

Table 9.1: Tulpehocken Area School District Student Population Dec 2007

	Grades Served	# of Students Enrolled	Capacity
Bethel Elementary	K-6	391	550
Penn-Bernville Elementary	K-6	391	600
JrSenior High School	7-12	855	884

Source: Tulpehocken Area School District

The Tulpehocken Area School District appears to be nearing capacity. The School District feels that they are too close to capacity in Bethel Elementary and the High School. Plans are underway for an addition to Bethel Elementary School and bids should go out in spring 2008 with the beginning of construction being anticipated to coincide with the beginning of the 2009 school year.

Other plans for the school district are to renovate the Rehrersburg Elementary School into Administrative Offices and relocate the current Administrative Offices out of the high school. The objective would be to utilize the vacated space at the high school for additional classrooms.

According to the enrollment projections and current trends, the school population should remain relatively stable for the next six years, with minimal annual increase accumulating to approximately five percent (5%) over the ten years.

The locations of these schools are shown on Figure 9-1, the Community Facilities Map.

BERKS COUNTY SCHOOL DISTRICT THIRD-DAY ENROLLMENTS, 2000-2007

School		D.	EKKS CO		100L DIS %	IKICI II	TIKD-DA I %	ENKOLI	%	2000-2007	%	2006-	%
District	2000-01	2001-02	Increase	2002-03	Increase	2003-04	Increase	2004-05	Increase	2005-2006	Increase	2007	Increase
Antietam	1,045	1,051	1%	1,014	-4%	1,093	8%	1,109	1%	1,116	1%	1,121	0%
Boyertown													
Area	6,712	6,727	0%	6,787	1%	6,919	2%	7,005	1%	6,979	0%	7,047	1%
Brandywine													
Heights	2,036	2,013	-1%	1,950	-3%	1,983	2%	1,997	1%	1,943	-3%	1,924	-1%
Conrad													
Weiser Area	2,117	2,724	29%	2,743	1%	2,822	3%	2,904	3%	2,977	3%	3,002	1%
Daniel Boone													
Area	3,002	3,174	6%	3,361	6%	3,503	4%	3,579	2%	3,782	6%	3,877	3%
Exeter													
Township	3,822	3,908	2%	3,955	1%	4,076	3%	4,210	3%	4,322	3%	4,401	2%
Fleetwood													
Area	2,426	2,496	3%	2,526	1%	2,633	4%	2,658	1%	2,694	1%	2,698	0%
Governor													
Mifflin	4,149	4,120	-1%	4,194	2%	4,265	2%	4,154	-3%	4,281	3%	4,279	0%
Hamburg													
Area	2,702	2,708	0%	2,755	2%	2,765	0%	2,746	-1%	2,728	-1%	2,687	-2%
Kutztown													
Area	1,809	1,814	0%	1,826	1%	1,801	-1%	1,771	-2%	1,766	0%	1,711	-3%
Muhlenberg	2,914	2,980	2%	3,015	1%	3,001	0%	3,112	4%	3,304	6%	3,342	1%
Oley Valley	2,174	2,136	-2%	2,203	3%	2,131	-3%	2,073	-3%	2,075	0%	2,057	-1%
Reading	14,914	15,553	4%	16,266	5%	16,494	1%	17,215	4%	17,362	1%	17,820	3%
Schuylkill													
Valley	1,863	1,880	1%	1,897	1%	1,910	1%	1,969	3%	1,993	1%	2,000	0%
Tulpehocken													
Area	1,719	1,735	1%	1,716	-1%	1,694	-1%	1,778	5%	1,699	-4%	1,673	-2%
Twin Valley	2,975	3,050	3%	3,133	3%	3,083	-2%	3,246	5%	3,331	3%	3,422	3%
Wilson	4,894	4,997	2%	5,148	3%	5,300	3%	5,478	3%	5,626	3%	5,699	1%
Wyomissing													
Area	1,848	1,813	-2%	1,858	2%	1,984	7%	1,865	-6%	1,905	2%	1,872	-2%
Total	63,121	64,879		66,347		67,457		68,869		69,883		70,632	

SOURCE: Berks County Intermediate Unit; Pennsylvania Department of Education

There are five facilities of higher education located near the planning region. Reading Area Community College (RACC) is located in downtown Reading. Two private four-year colleges are located in Reading: Albright and Alvernia. Penn State University has an extension campus in Spring Township, and Kutztown University, located in nearby Kutztown, is also a four-year state university.

LIBRARY SERVICE

Bernville Area Community Library is located in Bernville and serves as the community library for the Region. The library is open daily with limited hours on the weekend.

CHURCHES

Churches or Places of Worship allow the residents of the Townships and Borough to share in religious or social activities and provide a religious community that they can be a part of. There are five churches of various denominations located in the Region and several in close proximity in bordering municipalities.

Table 9.2: Local Churches

#	NAME	ADDRESS	CITY, STATE, ZIP CODE
1	New Life Church Fellowship	7401 Bernville Road	Bernville, PA 19506
2	Christ Little Tulpehocken Church	40 Church Road	Bernville, PA 19506
3	Friedens Lutheran Church	537 N. Main Street	Bernville, PA 19506
4	Soul Clinic Christian	RR 2	Bernville, PA 19506
5	St. Thomas Church	538 Main Street	Bernville, PA 19506

POLICE PROTECTION

Bernville Borough has a funded police force with four part-time officers on staff. Jefferson and Penn Township are served by the Pennsylvania State Police from Hamburg or Reading Barracks.

FIRE PROTECTION/EMERGENCY SERVICE/HOSPITALS

Five fire departments provide service to various sections of the Planning Region. All departments have inter-municipal agreements to provide backup to each other in times of emergency.

Table 9.3: Fire Companies in the Region

		Serves Bernville, Jefferson, Penn and
Bernville Fire Company	#29	1/3 of North Heidelberg
		Serves Penn Township and acts as
Mt. Pleasant Fire Company	#30	backup to the Region
		Serves parts of Jefferson Township
Strausstown Volunteer Fire Company	#50	and provides backup support
		Provides backup support and aid to the
Shartlesville Fire Company	#41	Region depending on call and area
		Provides backup support and services
Rehrersburg Volunteer Fire Company	#27	to Jefferson Township

Ambulance service in the Region is provided by three different organizations:

- Bethel Ambulance Station 2
- Schuylkill Valley Ambulance Service
- Western Berks Ambulance Association

Emergency service for the Region is coordinated and dispatched by the Berks County Communications Center. This 911 system provides the most basic function during an emergency, the immediate availability of a unified command center to address the needs of all those involved.

The nearest full-service hospitals to the Region are St. Joseph's Medical Center and Reading Hospital.

SOLID WASTE/RECYCLING

Trash disposal – or "solid waste management" to use the formal term – in the Townships is not regulated. It is the responsibility of the homeowner to contract with a private hauler. Burning is allowed in the Townships. Recycling is not a mandated activity and is strictly done on a voluntary basis.

The Borough has contracted with Waste Management for trash disposal. During the winter months from November 1 to April 30, garbage is picked up once a week. From

May 1 to October 31, garbage is picked up twice a week. Recycling is collected every other Wednesday in bins provided by the Borough.

Grass clippings and other yard waste is collected and taken to a compost facility located at Umbenhauer Park. Mulch is then supplied free to Borough residents.

OPEN SPACE AND RECREATION

Recreational areas and activities are an important component of the health and welfare of a region and are a valued community resource. Open space and recreation areas provide opportunities for leisure activities, preserving water supplies and natural areas, and are aesthetically pleasing.

Bernville Borough, Jefferson Township and Penn Township are the only municipalities in the Tulpehocken Region that have a surplus of municipal recreational acreage according the to the National Park and Recreation Association (NPRA). NRPA suggests that at a minimum, municipalities should provide 6.25 to 10 acres of open space/recreational acreage per 1,000 persons.

Open Space and Recreation in the Region is summarized in Table 9.4, Open Space and Recreation Facilities.

Table 9.4: Open Space and Recreation Facilities

Municipality	Name	Type	Acreage	Amenities
Bernville	Clay Park	Municipal	1.87	
Bernville	Blue Marsh Lake	Federal	45.57	Biking, Boating, Fishing, Hiking, Horseback, Hunting, Museum,
				Nature Study, Picnic Area, Cross country skiing, swimming
Bernville	Umbenhauer Park	Municipal	10.8	Outdoor amphitheatre, Picnic Area
Bernville	Western Berks	Municipal owned –	1.44	Swimming
	Swimming	administered by		
	Association	group		
Jefferson	Blue Marsh Lake	Federal	56.22	Biking, Boating, Fishing, Hiking, Horseback, Hunting, Museum,
				Nature Study, Picnic Area, Cross country skiing, swimming
Jefferson	Christmas Village	Private	142.56	Seasonal Attraction
Jefferson	Heidelberg Country	Private	144.88	Golf, Hiking, Horseback Riding, Ice hockey, Swimming, Tennis
	Club			
Jefferson	Jefferson Park	Municipal	32.7	Youth baseball, Open Fields Space, Picnic Area, Soccer
Jefferson	Kissling's Field	Private	23.47	Sports Fields
Penn	Blue Marsh Lake	Federal	1031.85	Biking, Boating, Fishing, Hiking, Horseback, Hunting, Museum,
				Nature Study, Picnic Area, Cross country skiing, swimming
Penn	Blue Mountain	Private	34.22	Nature Study
	Wilderness			
	Association			
Penn	Gamelands 280	State	1859.73	Hiking, Hunting, Nature Study
Penn	Northkill Rod & Gun	Private	36.95	Hunting
	Club			
Penn	Penn Township Park	Municipal	36.14	Basketball, Tennis

Source: Berks County Greenway, Park and Recreation Plan 2007

Several regional open space and recreational areas are located within a 15-30 minute drive. Over 5,500 acres of Blue Marsh Lake recreation area borders the Region and is the main source of water activities in the surrounding area. The Schuylkill River Trail is a 128-mile trail system that follows the Schuylkill River and can be enjoyed from various start locations. The Appalachian Trail and Pennsylvania State Game Lands are located along the northern border in the Appalachian Mountains. French Creek State Park, Daniel Boone Homestead, Conrad Weiser Homestead, Kaercher Creek Park, and Nolde Forest Environmental Education Center are some of the State-owned recreation opportunities in the surrounding area. The County also owns some notable recreation and open space areas including: the Gruber Wagon Works, Allegheny Aqueduct, Leesport lock house, and Tulpehocken Creek Valley Park. Commercial recreation is available county-wide and encompasses roller and ice skating, bowling alleys, fitness centers, miniature golf, rock climbing, indoor entertainment areas, racing venues, museums, and golf courses.

Open Space and Recreation

Objectives:

- Identify methods for open space preservation, such as participation in County programs and cooperation with conservation-oriented agencies.
- Establish a greenway system within the Region pursuant to the Berks County Open Space and Greenway Plan.
- Preserve a network of woodlands, stream corridors, and agricultural lands in the Townships and Borough.
- Require residential development to emphasize open space conservation through permissible development options and ordinance requirements.
- Establish developer responsibilities for provision of park and recreation facilities within subdivision and land development ordinances.
- Identify designated growth areas near existing developed areas to reduce pressure on existing open spaces and agricultural areas.
- Encourage infill development in the Borough and between existing developed areas and maintenance and restoration of existing housing resources to reduce development of open space and agricultural areas.
- Plan infrastructure improvements so they do not encourage development in areas desired as open space or retention of rural-agricultural character.

- Where appropriate, require developers to provide open space and recreation areas for active and passive recreation and to coordinate open space systems among adjoining developments. Otherwise, require fees in lieu to implement recreation, park and open space plans.
- Encourage developers to provide both visual and physical access to the open space system.

Community Facilities / Open Space and Recreation Actions

- A. Support efforts of Regional Open Space and Recreation Organizations, including the Berks County Open Space and Advisory Council, to plan for and seek funding for the continued acquisition, improvement and appropriate development of recreation facilities, greenways, and recreation programs in the Region.
- B. Establish and maintain language in Subdivision and Land Development Ordinances to require developers to dedicate land or pay a fee in lieu of land for all new subdivisions.

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

Maintain standards for recreation facilities. Review National Recreation and Park Association (NRPA) Standards for appropriateness.

- C. Where appropriate, work with PennDOT to widen and improve road shoulders and require developers to improve shoulders along their properties in order to accommodate pedestrian and bicycle facilities.
- D. Maintain a dialog with the Tulpehocken School District regarding development activities, school facilities needs, location of school facilities, and school bus routes.
- E. Work with the Tulpehocken School District to assure availability of school district facilities to the Region's residents.
- F. Promote and support efforts of community organizations to provide recreational facilities and programs for all area residents and services and programs for seniors and youth.

- G. Provide for public areas within the Region through provision of open spaces, village greens, recreation facilities, greenways, improved pathways, and indoor facilities. Prioritize lands designated by the *Berks County Greenway, Park, and Recreation Plan*.
- H. Enforce on-lot Sewage Management Ordinances and State mandates to manage, monitor, and maintain on-lot sewage disposal facilities in the Region and assure that the best available technology is used.
- I. Involve local fire companies and school district personnel in review of subdivision and land development plans, where appropriate.
- J. Encourage volunteerism for non-profit agencies and increased coordination of volunteer services among agencies.
- K. Continue to promote recycling activities and work to establish recycling centers, if deemed appropriate, that are convenient and well managed.
- L. Address the need for fire and emergency medical personnel as fewer volunteers become available. Cooperate regionally to ensure adequate service throughout the Region.
- M. Coordinate policies of governing bodies, municipal authorities regarding the development of public sewer and water facilities within the Growth Areas, as depicted on the Future Land Use Plan, to assure consistency.
- N. Bring together citizens, the business community, and the school district to plan and organize community-wide activities, events, and programs to foster community spirit, economic development, and community attractiveness.
- O. Maintain current and workable emergency operations plans.
- P. Require all wastes to be treated and/or disposed of in an approved, environmentally responsible manner.
- Q. Promote efficient, effective, and professional management of public facilities. Identify opportunities for technological enhancements for municipal government.
- R. Update the Act 537 Sewage Facilities Plans for all three municipalities and include on-lot management recommendations. Seek input from surrounding municipalities.

Future Recreation Needs

The National Recreation and Parks Association (NRPA) Standards recommend a minimum of ten (10) acres of local parkland for every 1,000 residents. The total population of the Region, according to the 2005 U.S. Census Bureau estimate, is 5,055. Applying the NRPA Standards, the Region should contain a minimum of approximately 50 acres of developed, local usable active parkland (see Table 9.5). The municipalities should continue to keep recreation and open space provision a high priority.

Table 9.5: Recommended Open Space and Recreation Acreage

Municipality	2005 Population (Estimate) Source: US Census Bureau	Minimum Recommended Acres (NRPA Standards- 10 acres / 1,000 persons)	Total Existing Public Recreation Acres (Municipal)
Bernville	881	8.8	12.7
Jefferson Township	2,039	20.4	32.7
Penn Township	2,135	21.4	36.1
Total Region	5,055	50.6	82.9

According to Table 9.5, the Region as a whole meets the minimum NRPA acreage standards. Federally-owned Blue Marsh Lake and State-owned Game Lands were not included in the calculation of active, municipal parkland, as they are regional in nature, and do not typically provide for the day-to-day local recreational needs of the residents. Private recreational facilities were also omitted from the analysis, as they may not be available to the public, and can be transient in nature.

It should be noted that these recommended acreage figures are minimum recommended acreages, so it should not be construed that recreation and open space is no longer a priority in the Region. It is a recommendation of this plan to preserve land now, while the land is still undeveloped, creating an open space system consisting of a network of connected active and passive open space and recreation opportunities. Lands targeted as high priority Greenways by the *Berks County Greenway, Park, and Recreation Plan* should receive highest priority for acquisition. However, if the Townships or Borough encounter an opportunity to acquire open space that is vulnerable to incompatible development, and can be incorporated into the Region's recreation system, they should acquire the land.

Passive recreation and/or undeveloped open space may include stream corridors, wetlands, steep slopes, ridgelines, and groundwater recharge areas. Active recreation areas are characterized by property that is suited for athletic fields or playgrounds (flat and well-drained); has adequate public access; and closer to population centers.

Greenways and Creek Conservation Corridors

What is a Greenway?

The Pennsylvania Greenway Partnership Commission defines a greenway as follows:

A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban, and rural areas to wide corridors that incorporate diverse natural, cultural, and scenic features. Greenways can be land- or water-based, running along stream corridors, shorelines, lakes, waterfalls, or wetlands. Some follow old railways, canals, ridgelines, or other features. They can incorporate both public and private property. Some greenways are primarily recreational corridors, while others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway network will protect natural, cultural, and scenic resources, provide recreational benefits, enhance the natural beauty and the quality of life in neighborhoods and communities, and stimulate economic development opportunities.

Benefits of Greenways

Greenways can have a number of benefits:

- Protect natural, cultural, and scenic resources.
- Link communities together.
- Provide for recreational opportunities such as walking, biking, picnicking, camping, skiing, fishing, equestrian trails, snowmobile trails, and links to recreation resources.
- Enhance the quality of life and promote revitalization in communities.
- Provide educational and interpretive opportunities.
- Enhance tourism and economic development opportunities.

- Maintain habitat linkages (wildlife corridors) and ecosystems.
- Allow access to natural, scenic and cultural resources.
- Preserve and build upon existing trail networks.
- Provide alternatives to vehicular travel.
- Provide riparian buffers to protect water quality.
- Provide linkages to trails of regional significance.

The municipalities should work toward the establishment of a greenway/bike path system with highest priority given to the linking of existing parks and open space facilities, as well as creating links to trail systems outside of the Region. Not all corridors will be developed as active greenways with trails, nor will they all exist along a creek – these corridors should exist to preserve vital natural features, particularly ridge lines, woodlands, wetlands, and native vegetation.

Recommended Greenway and Bike Path System

The Future Greenway Network recommended by the *Berks County Greenway*, *Park*, *and Recreation Plan* depicts a regional system of proposed greenways and bike paths. The plan is conceptual and subject to further refinement, but is the starting point for a Regionwide greenway system. Greenways and trails should be considered along creeks and natural corridors, as well as a part of a region-wide system that connect existing local trails, subdivisions, recreational and municipal facilities, and businesses.

The Greenways for the Tulpehocken Region include the following corridors:

- Tulpehocken Creek;
- Northkill Creek.

The Plan designated both of these corridors as highest priority Greenways.

Green Infrastructure

Green Infrastructure is a natural life support system. It is an interconnected network of protected land and water that supports native species, maintains natural ecological processes, sustains air and water resources and contributes to the health and quality of life for the Region's communities and people. Within this infrastructure, streams and rivers,

ridgelines, hiking and biking trails, passive open space, as well as wildlife migration corridors can be found.

Plan for the Reliable Supply of Water

The 2000 amendments to the Municipalities Planning Code (MPC) state that a County or multi-municipal comprehensive plan *shall* include a plan for the reliable supply of water. Chapter 18, Natural Resources, provides a detailed description of the geology and groundwater of the Region.

Where developments, businesses, or other entities propose to utilize ground water or surface water supplies in substantial amounts, hydrologic studies should be required and the party causing the extraction is required to demonstrate that such use will have no adverse effects on the water supplies of other entities in the Region.

In cases in which watershed areas are used for public recreation purposes, public access and usage should be consistent with the need to protect water supplies.

Efforts to protect groundwater resources must occur at all levels of government. Special consideration to the types and densities of permitted land uses should apply in areas that offer little natural protection to groundwater. Such efforts should also apply where the protection level is unknown. Groundwater quality is also a concern since domestic water for many of the residents of the Region outside of the few community water service areas are supplied by individual wells.

Land use regulations, land acquisition, and education programs can play a key role in protecting groundwater. Examples of land use control activities include the following:

- Land use plans that consider groundwater vulnerability;
- Zoning ordinance and site plan review standards related to aboveground secondary containment, interior floor drains, and other topics;
- Purchase of land and/or conservation easements to provide a wellhead protection buffer around any future municipal wellfields; and
- Public education through public meetings, school-based classroom programs, library displays, cable television videos, public information flyers, and municipal newsletters.

Protection of groundwater resources requires efforts on several fronts, including the need for regional planning, land planning for individual sites, and technological advances that may offer alternative solutions. Regional planning must be based on the entire watershed; it will do little good for one community to implement solutions to its problems only to find that neighboring communities do not. Groundwater has no respect for community boundaries. From a land planning perspective, simply requiring larger lots does little or nothing to enhance groundwater quality. One of the few readily available solutions to polluted wells or failed septic systems is to obtain public water and sewer. With the larger lots sizes and frontages prevalent in some areas in the Region, the costs of water and sewer services to homes are likely to be very expensive. On the other hand, where lot frontages are smaller, so too will be the cost of public utilities.

Municipal zoning ordinances should contain provisions to protect sources of water supply through the following techniques:

- 1. Natural resource protection standards (net out provisions) protecting floodplains, wetlands, wetland margins, steep slopes, watercourses, water bodies, and lake and pond shores.
- If municipal water supplies are developed, wellhead protection provisions pursuant to wellhead protection planning should be completed.
- 3. Stream Corridor Overlay Zoning.
- 4. Floodplain, wetland, and hydric soil protection provisions.
- 5. Environmental performance standards and environmental assessment requirements for industrial and commercial uses. Businesses should have Spill and Pollution Prevention Plans.
- 6. Provisions to minimize impervious cover.

When development plans are reviewed, developers must indicate proper management of stormwater runoff as well as control of erosion and sedimentation to protect local water resources.

The recommendations of the Tulpehocken Creek and Schuylkill River Stormwater Management Ordinance, as prepared in accordance with Act 167, the Stormwater Management Act, should be adhered to.

In accordance with current best management practices, stormwater management should be considered part of the hydrologic cycle with less emphasis on detention and more emphasis on infiltration to reduce the volume and the rate of runoff, pollution, and thermal impacts. Developers must identify the resources within their tracts, and to analyze and mitigate the impacts of development. Natural resources should be incorporated into the open space system.

It should be noted that lawful activities such as extraction of minerals impact water supply sources. Such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.

The following Table 9.6 provides a reference for zoning ordinance policy recommendations and techniques for water resource protection.

Table 9.6: Recommendations for Protecting Water Supplies

Stream Corridor Overlay Zoning	Zoning Policies	Water Resource Protection Provisions	Impact Analyses
 Restrict development and impervious surfaces Require riparian vegetative buffers Encourage use of best management practices Encourage stream habitat improvement Encourage conservation easements/donations / dedications Protect wetlands and wetland margins Require floodplain and wetland studies based on soil types Employ Innovative stormwater management techniques 	 Encourage development where public sewer and water exist; discourage onsite sewer and water Limit impervious surfaces Establish performance standards for uses Protect aquifers through controlling uses and potential polluting activities Establish an overlay protection zone 	 Regulation/restriction of potential contaminating uses and substances Performance standards Design standards Operating requirements Review process Wellhead protection ordinance 	 Supply locations Geologic conditions, recharge rate, degree of renovation Aquifer characteristics: groundwater movement, use, yield, quality, quantity, well interference Test well results and impacts Plan to protect groundwater system underlying and adjacent to the site: prevention, remediation, emergency management Monitoring of groundwater quality and quantity

STORMWATER MANAGEMENT

Jefferson Township, Bernville Borough and a portion of Penn Township are located in the Delaware River Basin, Subbasin Number 3 (The Lower Delaware), Watershed C (Tulpehocken Creek). These watersheds have been designated by the DEP under Act 167 of 1978, the Stormwater Management Act, and are required to have a stormwater management plan in place. The main objective of a stormwater management plan is to control stormwater runoff from the standpoint of the entire watershed rather than individual site, promote groundwater recharge and improve the quality of stormwater discharged. The Tulpehocken Creek Watershed has adopted a stormwater management plan on August 28, 2001.

The remainder of Penn Township is located within the Delaware River Basin, Subbasin Number 3 (The Lower Delaware), and the Schuylkill River watershed. The Schuylkill River Stormwater Management Plan and Ordinance for Berks County have been developed in accordance with the Act 167 requirements. The Schuylkill River Stormwater Management Plan received conditional approval in September 2007.

The stormwater plan regulates flow intensity and release rates, promotes groundwater recharge and improves the quality of stormwater discharged throughout the watershed and contains a stormwater management ordinance, which will be adopted by all municipalities within the watershed.

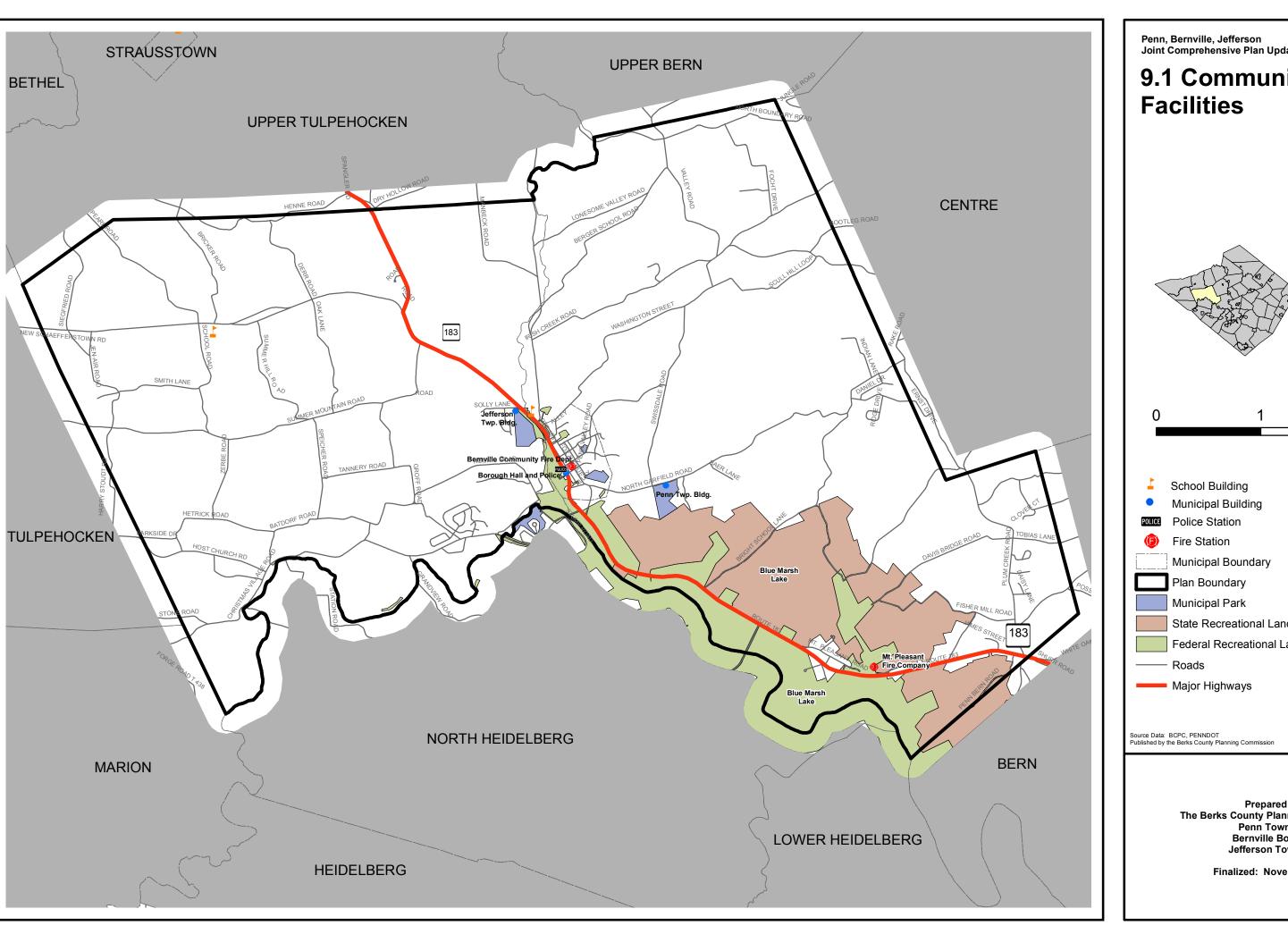
Act 167 Stormwater Management Plan –

Up to the enactment of Act 167, stormwater management had been oriented primarily towards addressing the increase in peak runoff rates discharging from individual land development sites to protect property immediately downstream. Minimal attention was given to the effects on locations further downstream, or to designing stormwater controls within the context of the entire watershed. Management of stormwater also was typically regulated on a municipal level with little or no designed consistency between adjoining municipalities in the same watershed concerning the types, or degree, of storm runoff control to be practiced.

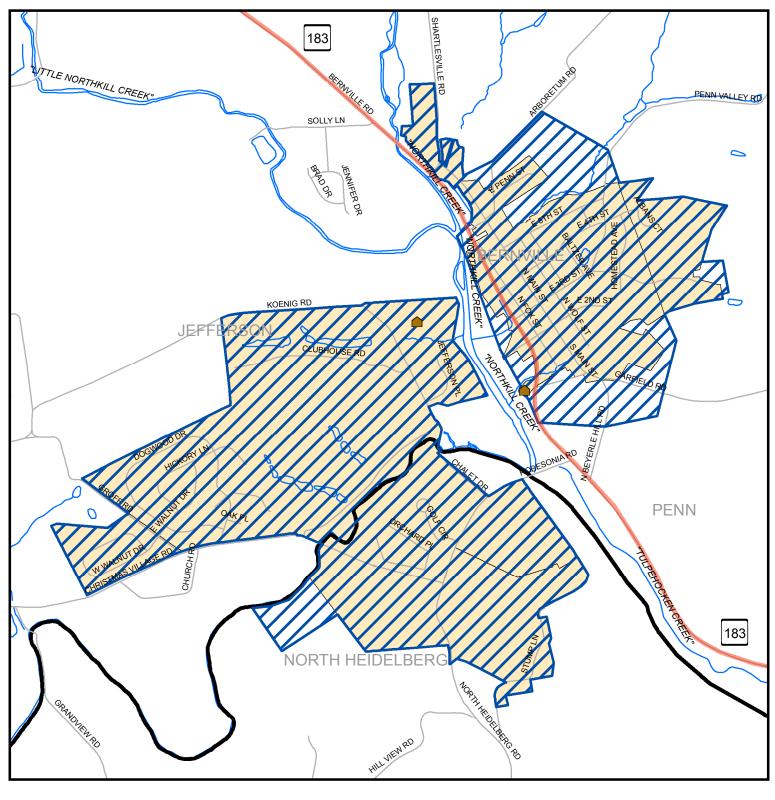
Act 167 changed this approach by instituting a comprehensive program of stormwater planning and management on a watershed level. The Act requires Pennsylvania counties to prepare and adopt stormwater management plans for each watershed located in the county, as designated by the Pennsylvania Department of Environmental Protection (DEP). Most importantly, these plans are to be prepared in consultation with municipalities located in the watershed, working through a Watershed Plan Advisory Committee (WPAC). The plans are

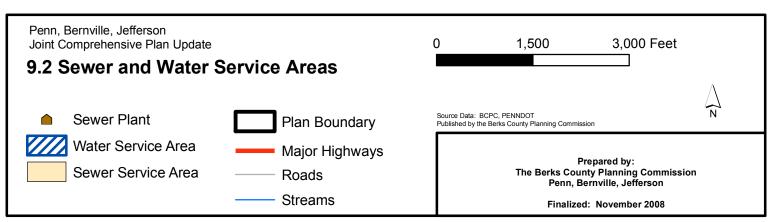
to provide for uniform technical standards and criteria throughout a watershed for the management of stormwater runoff from new land development sites.

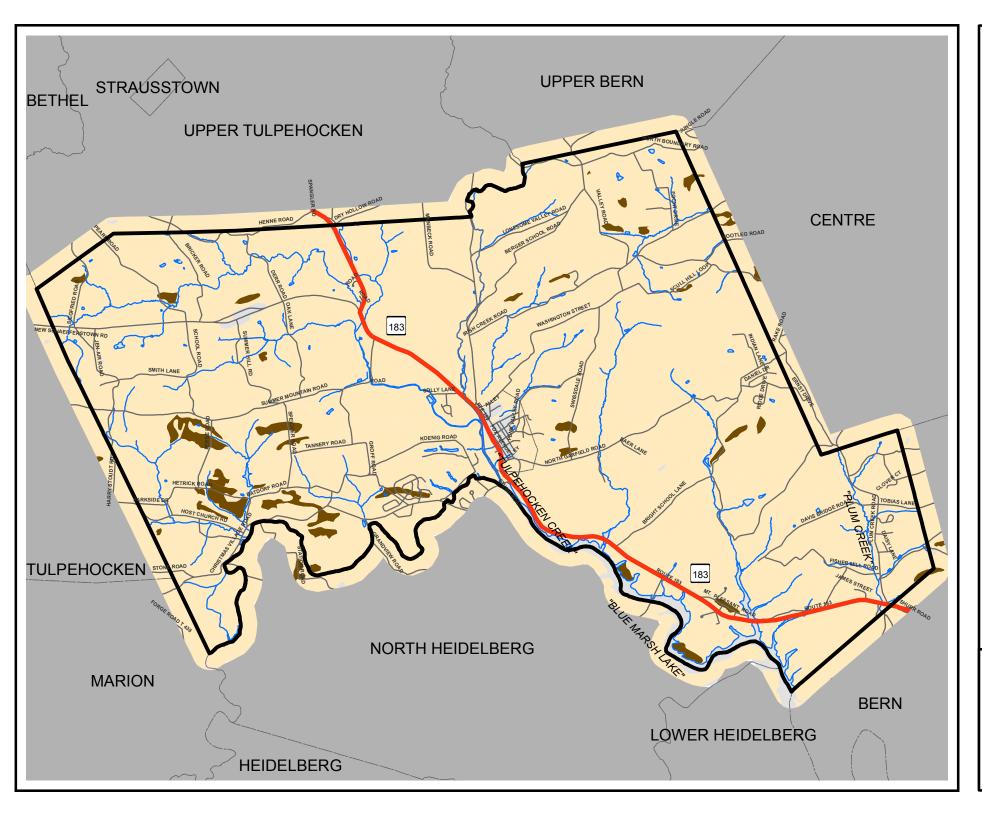
The types and degree of controls that are prescribed in the watershed plan need to be based on the expected development pattern and hydrogeologic characteristics of each individual watershed. The management plan, specifically the standards and criteria, are to be developed from the technical evaluations performed in the planning process, in order to respond to the "cause and effect" nature of existing and potential storm runoff impacts in the watershed. The final product of the Act 167 watershed planning process is to be a comprehensive and practical implementation plan, developed with sensitivity to the overall needs (e.g., financial, legal, political, technical, and environmental) of the municipalities in the watershed.

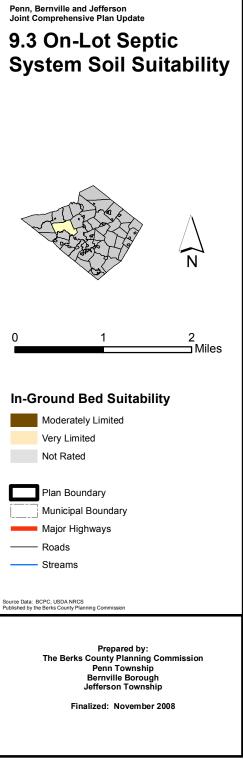


Penn, Bernville, Jefferson Joint Comprehensive Plan Update 9.1 Community State Recreational Land Federal Recreational Land Prepared by:
The Berks County Planning Commission
Penn Township Bernville Borough Jefferson Township Finalized: November 2008









Chapter 10

Transportation and Circulation Plan

Introduction

There is a direct connection between land use planning and transportation, one cannot plan for one and ignore the other. The transportation system will function properly only when each community has adequate access to the system. The identification of problem areas throughout a region's transportation network, as well as a logical land use plan that enables residents to make fewer vehicle trips are key components to a joint comprehensive plan.

Existing Roads

PA Route 183 (SR 0183) is the major thoroughfare through the Region. PA Route 183 connects the area to Reading to the south and to I-78 via Strausstown to the north. PA Route 183 also carries the area's highest average traffic volumes. 2005 traffic counts by the Pennsylvania Department of Transportation noted over 15,311 vehicles per day on PA Route 183 at the Bernville-Penn Township municipal boundary. Traffic volumes decrease moving northward through the Borough into Jefferson Township to the 12,000 range. Traffic volumes decrease again where PA Route 183 passes out of Jefferson and into Upper Tulpehocken Township. This reflects the fact that New Schaefferstown Road carries 4,104 trips from PA Route 183 at the two roads' intersection north of Bernville.

Roads have various functions; some roads are designed to expedite through traffic while others mainly provide access to local residential areas. Many of the roads in the Region were designed to handle rural traffic but with increased development in the Region, the roads have more traffic than they were designed for which results in substandard design.

Functional Classification of Roadways

Roads are classified by the volume of traffic that they are designed to handle and the degree of access that they provide to abutting properties. The Transportation Plan Map, Figure 10.1, includes the recommended functional classification for the Region's roads. Classifying roads by their intended function is important to decide how access onto a road should be allowed, including number of access points and how the access is designed. Functional classifications can also assist in prioritizing roads for future improvements. This functional classification of roads has other important implications as well. Rights-of-way should be wider and front yard setbacks greater on roads that carry higher traffic volumes. High volume roads should have more lanes and higher speed limits than local secondary streets.

HIGHWAY FUNCTIONAL CLASSIFICATIONS AND RECOMMENDED DESIGN FEATURES

Classification	General Provisions	Right-of-Way Width (ft)	Cartway Width
Expressway	55+ MPH Limited Access No Parking Noise Barrier/Buffer (where required)	Minimum 120; however, may be wider based on local conditions and design	Minimum four 12' wide travel lanes with 10' wide shoulders capable of supporting heavy vehicles
Arterial (Principal and Minor)	35-65 MPH Some access controls to and from adjacent development. Encourage use of reverse and side street frontage and parallel access road. No Parking	80	48-52 feet; 12' wide travel lanes with shoulders in rural area and curbing in urban areas
Collector (Major and Minor)	25-35 MPH Some access controls to and from adjacent development. Parking permitted on one or both sides.	60	34-40 feet; 12' wide travel lanes with stabilized shoulders or curbing; 8' wide lanes provided for parking.
Local	15-35 MPH No access control to and from adjacent development. Parking permitted on one or both sides.	53	28-34 feet with stabilized shoulders or curbing; cartway widths can be reduced based on interior traffic patterns.

The rural principal arterial system consists of a commercial rural road network of continuous routes having the following characteristics:

- Serve the corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel.
- Provides connections to all, or nearly all, urban areas of 50,000 and over population and a large majority of those with population of 25,000 and over.
- Provide an integrated network without stub connections except where unusual geographies of traffic flow conditions dictate otherwise (e.g., internal boundary connections and connections to coastal cities).

Rural Principal Arterial System - The rural principal arterial system is stratified into the following two subsystems:

Interstate System - The interstate system consists of all presently designated routes of the Interstate System located outside small urban and urbanized areas.

Other Principal Arterial System - This system consists of all non-Interstate principal arterial highways located outside small urban and urbanized areas.

- <u>Rural Minor Arterial System</u> The rural minor arterial system should, in conjunction with the principal arterial system, form a rural network having the following characteristics:
 - Link cities and towns (and other generators, such as a major resort area, that are capable of attracting travel over similarly long distances) and form an integrated network providing interstate and inter-county service.
 - Be spaced at such intervals, consistent with population density, so that all developed areas are within a reasonable distance of an arterial highway.
 - Provide service to corridors with trip lengths and travel density greater than
 those predominately served by rural collector or local systems. Minor arterial
 highways therefore constitute routes whose design should be expected to
 provide for relatively high overall travel speeds, with minimum interference
 to through movement.
- Rural Collector Road System The rural collector routes generally serve travel of primarily intra-county rather than statewide importance and constitute those routes on where predominate travel distances are shorter than on arterial routes. Consequently, more moderate speeds may be typical, on the average. To define more clearly the characteristics of rural collectors, this system should be sub-classified according to the following criteria:
 - Major Collector Roads These routes should: (1) Provide service to any county seat not arterial routes, to the larger towns not directly served by higher systems, and to other traffic generators of equivalent inter-county importance, such as a consolidated school, shipping points, county parks, important agricultural areas, and so forth; (2) Link these places with nearby larger towns or cities, or with routes of higher classification; and (3) Serve important intracounty travel corridors.

- Minor Collector Roads These routes should: (1) Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road; (2) Provide service to the remaining smaller communities; and (3) Link the locally important traffic generators with their rural hinterland.
- Rural Local Road System The rural local road should have the following characteristics: (1) Serve primarily to provide access to adjacent land; and (2) Provide service to travel over relatively short distances as compared with collector roads or other highway systems. Local roads will, of course, constitute the rural mileage not classified as part of the principal arterial highway, minor arterial, or collector road systems.

The area's roads can be classified as follows:

Arterials – Roads that provide a rapid connection between populated areas, such as between Reading and Bernville.

• PA Route 183 (SR 0183)

Collectors – Roads that collect traffic from local areas and funnel it onto arterials.

- New Schaefferstown Road (SR 4016)
- Christmas Village Road (SR 4010)
- Shartlesville Road/Main Street/North Garfield Road (SR 4020)
- Irish Creek Road
- Old Church Road
- North Heidelberg Road

Locals – Roads that provide direct access to residential areas.

All other roads in Jefferson and Bernville.

IMPORTANCE OF TRANSPORTATION

Transportation affects the daily lives of most people. It is important to understand the impact of transportation needs on an area. One aspect of transportation needs is travel to and from work. The U.S. Census provides information that can be used to determine the circulation needs of a community. The following chart shows the methods used for commuting to work for the Region's labor force 16 years and older in 2000.

COMMUTING TO WORK - 2000

	Penn To	ownship	Jefferson	Township	Bernville	Borough
	Number	Percent	Number	Percent	Number	Percent
Workers 16 years						
and over	1090		799		450	
Drove alone to						
work	941	86.3%	648	81.1%	389	86.4%
Carpooled	55	5.0%	94	11.8%	32	7.1%
Public						
Transportation						
(including						
taxicabs)	0	0	0	0	0	0
Walked to work	46	4.2%	7	.9%	13	2.9%
Other means	1	.1	0	0	5	1.1
Worked at home	47	4.3%	45	5.6%	11	2.4
Mean travel time						
to work (minutes)	22.3		27.1		21.7	

Source: U.S. Census Bureau

The majority of workers 16 years of age and older, in the Region drove alone to work. Jefferson Township had 81% of their workers that drove alone to work as compared to Bernville Borough and Penn Township that each had 86% that drove alone. Jefferson Township had 11.8% of its workforce carpooling to work while Penn Township had 5% and Bernville Borough had 7%. Of note, 4.2% of Penn Township workers walked to work while only 2.9% of Bernville Borough workers walked. Jefferson Township had .9% of workers walking to work. Public Transportation was taken by no one, illustrating that there is a lack of public transportation in the Region. The mean travel time to work was 22.3 minutes for Penn Township, 27.1 for Jefferson Township and 21.7 for the Borough of Bernville. Both Penn Township and Bernville Borough were less than the Pennsylvania mean travel time which is 25.2 minutes and the National mean travel time to work, 25.5 minutes. Jefferson Township was higher than both with a mean travel time to work of 27.1 minutes.

Since the reliance on the automobile is so strong in the Region, it is very important that transportation and circulation issues are addressed.

Addressing transportation issues has three critical benefits:

- It increases the quality of life for the residents by facilitating circulation and making travel safer.
- Attractiveness of the Region as a destination and place of work or residence can be enhanced if congestion is mitigated; and, the level of service and visual attractiveness of area roads are maintained.
- PA Route 183, is considered the main economic growth corridor of the Region. Providing a well maintained transportation system is necessary to support optimum economic development.

COMPOSITION OF THE CIRCULATION NETWORK

Municipal and State road mileage for the Townships are listed below in Table 10.1.

Table 10.1: Road Miles

Municipality	State Miles	Municipal Miles	Total
Bernville Borough	1.15	4.75	5.9
Jefferson Township	16.80	26.57	43.37
Penn Township	21.34	26.86	48.20

Bernville has 5.90 miles of roadway: 1.15 miles of state roads and 4.75 miles of Borough roads. PA Route 183, Shartlesville Road, Main Street, North Garfield Road and on a portion of 2nd Street (between Main Street and PA Route 183) are the only state-owned roads in Bernville.

Jefferson Township has 43.37 miles of roads. This mileage is comprised of 16.80 miles of state-owned roads and 26.57 miles of municipally-owned roads. State-owned roads in Jefferson include PA Route 183, New Schaefferstown, Christmas Village, Shartlesville and Summer Mountain Roads.

Penn Township consists of 48.20 miles of roads. There are 26.86 of municipal miles and 21.34 of State roads. State owned roads are PA Route 183, Robesonia Road, Plum Creek Road, Shartlesville Road, Grange Road, Irish Creek Road, and Church Road.

Road Conditions

Road conditions vary between Penn and Jefferson Townships and Bernville Borough. Penn and Jefferson's rural character and varying topography create many situations not prevalent in the Borough. The following are concerns in regard to several of Jefferson's roads including both state-owned and township-owned roads.

- Areas of poor sight distance, with buildings, slopes, curves, fences, parked vehicles or trees obstructing views of on-coming traffic,
- Streets intersecting at awkward angles, which obstructs sight distance and may encourage drivers to not come to a complete stop at intersections,
- Areas of sharp curves, which limit sight distance and may cause a driver to lose control,
- Intersections that are not aligned on both sides of a road, causing confusion to drivers making turns,
- Areas of steep slope, which are especially slippery during rainy, snowy or icy weather.

Specific concerns in Jefferson Township focus on New Schaefferstown Road, Koenig Road and existing unpaved roads. The 55 mph speed limit along New Schaefferstown Road is considered too fast by some Township residents, particularly from New Schaefferstown village to Pearl Road/School Road. The intersection of New Schaefferstown and PA Route 183 presents difficulties in terms of sight distance and alignment.

Penn Township's concerns are very similar to Jefferson with improper road alignments, insufficient sight distances or high volume roads at a high rate of speed. The intersections of Mt. Pleasant Road, Old Church Road, Plum Creek Road, Shartlesville Road and PA Route 183 are difficult and dangerous intersections due to speed and sight distances.

Bernville's traffic and roadway concerns focus around PA Route 183 and Main Street. Borough officials and other residents have indicated the need for a traffic signal to permit easier access from Third Street onto PA Route 183. Similar concerns have been raised concerning the intersection of Shartlesville Road and PA Route 183, though this is actually located in Penn Township just outside the Borough boundary.

Public Transportation

No fixed route bus or passenger rail service exists in Penn, Jefferson or Bernville. Nor is there any realistic prospect of gaining these services in the foreseeable future.

BARTA, The Berks Area Reading Transportation Authority, was formed in 1973 after the City of Reading and Berks County purchased the assets of the former Reading Bus Company. BARTA operates a fixed route bus service in the urban area of the County plus provides door-to-door on-demand van service to elderly and handicapped citizens throughout the County.

Long distance, inter-city bus service is provided by Capital Trailways and Bieber Tourways. Capital Trailways provides daily service from Reading to Philadelphia with a direct route and a route with stops depending on the time of departure. A route between Reading and Lebanon and Harrisburg via U.S. 422 is also available with service to Allentown and Pottsville. Bieber Buses provide service between Kutztown and Reading, plus offer routes to Atlantic City and New York.

Rail Service

There is no freight rail service or passenger rail service in the Region. The Norfolk Southern owns and operates the majority of railroad lines in the County. The majority of the activity occurs in the City of Reading with the line going from Harrisburg through Reading to Philadelphia.

The Reading Blue Mountain and Northern Railroad provides short line service to shippers on the Schuylkill Secondary Line that goes between Temple and Hamburg. Additional short line services run to northeastern Pennsylvania, Kutztown and Topton, and Pottstown to Boyertown.

AMTRAK has a commuter rail terminal in downtown Lancaster, Philadelphia and Harrisburg, both within a one to one and one-half hour drive.

Aviation

The nearest airport is the Reading Regional Airport approximately ten miles away. There are three charter services based at Reading. Additionally, there are Corporate and other general aviation aircraft operating out of the airport.

The nearest passenger, commuter, and charter air service are located between 55 and 65 miles away. They are Lehigh Valley International Airport (ABE), Philadelphia International Airport (PHL), and Harrisburg International Airport (MDT).

Two private airports are close to the planning region. Grimes Airport has a 2860 foot turf runway and is located in Bethel Township, north of Interstate 78. It provides fuel, minor maintenance, radio, and hangar facilities. Kutztown Airport is located east of the region in Maxatawny Township and includes a 2,068 foot turf runway and a 1,938 paved runway. Services provided are radio, fuel, maintenance and hangar facilities. The airport is the local center for sailplane activities in the County.

Pedestrian and Bicycle Access

The Borough of Bernville has an extensive network of sidewalks existing along most streets. The Village of New Schaefferstown in Jefferson Township also contains some sidewalks. In Bernville and New Schaefferstown gaps or missing links, poor conditions of certain segments and noncompliance with the Americans with Disabilities Act (ADA), hinders maximum and efficient use of sidewalks by pedestrians.

Recreational trails for hiking and biking are mainly located at Blue Marsh Lake.

The Berks County Open Space and Recreation Plan lists future trails along the Northkill Creek and Tulpehocken Creek as a high priority.

Bernville should initiate a sidewalk improvement program to reconstruct deteriorating sidewalks and to establish sidewalks where none now exist along the Main Street corridor and selected streets that connect to Main Street.

Opportunities exist for multi-purpose greenways in each community. Greenways are linear parks and open space corridors of all kinds, and may include walkways, bikeways, hiking trails, jogging paths, nature trails and/or simply wildlife habitats. The Army Corps of Engineers has a loop trail around Blue Marsh Lake.

Transportation Goal:

Achieve a safe, efficient, multi-modal, and cost effective regional circulation system which will enhance pedestrian and bicycle movement, ease vehicular travel within the municipalities, minimize adverse impacts.

Objectives:

- Encourage regionally-oriented traffic to utilize regional arterial highways and discourage this traffic from using locally-oriented collector roads.
- Eliminate deficiencies in the Region's roadway network pursuant to the Transportation Plan concepts of this plan.
- Identify and generally set priorities for projects which are appropriate for inclusion on Berks County's Twelve-Year Transportation Improvements Program.
- Monitor opportunities and need for transit service in the Region with BARTA.

- Consider low-cost physical improvements to new roads and roads undergoing upgrading to accommodate bicyclists pursuant to municipal recreation plans and review of development plans.
- Improve the appearance of the PA Route 183 Corridor through adoption of design and performance standards.
- Establish roadway maintenance programs for each municipality to prevent deterioration and ensure safety of the existing road system.
- Manage access along roads pursuant to the Transportation Plan Concepts and adopted ordinance provisions.
- Work to enhance mobility for the elderly, the physically impaired, and those who do not own or lease an automobile.
- Address parking needs on Main Street in Bernville.
- Establish consistent signage policies along roads within the Region.
- Monitor impacts on roadway capacity from new development and require developers to address projected increased traffic volumes in the road system by improving the existing system.
- Encourage the development of a bicycle and pedestrian network that enhances connections between neighborhoods and activity centers such as the Blue Marsh Lake trail system that can serve as a regional recreation amenity, and that can contribute to maintaining community health.

Actions:

- A. Update zoning ordinances as necessary.
 - 1. Include access management standards in zoning and/or subdivision and land development ordinances as determined by the Townships and Borough:
 - a. Establish access location standards
 - b. Establish access point separation requirements
 - c. Require access to streets of lower functional classification
 - d. Require internal road systems
 - e. Require coordinated/shared ingress and egress
 - f. Require interconnection of properties, including access, parking, loading
 - g. Establish separations from intersections
 - h. Require coordinated traffic movements
 - i. Require acceleration and deceleration lanes where appropriate
 - j. Require left and right turn lanes where appropriate
 - k. Refine design standards for intersections, driveways, internal circulation, and parking lot design
 - 1. Minimize entrances to roads
 - m. Prohibit inappropriate turning movements
 - n. Consider signalization of high volume driveways
 - o. Refine location, size, and design requirements for billboards and signs.
 - 2. While particularly crucial along the PA 183 Corridor, access should be managed along all roads within the Region.

- 3. In mixed use areas, where pedestrian activity can be higher, discourage curb cuts over sidewalks to limit pedestrian/vehicular conflict.
- B. Update subdivision and land development ordinances as necessary.
 - 1. Establish appropriate design standards for each functional classification of road. Safe, buffered, and sufficiently set back bike and pedestrian lanes can be included in the cross-sections with consideration given to the Pennsylvania Statewide Bicycle and Pedestrian Master Plan and Guide for the Development of Bicycle Facilities by American Association of State Highway and Transportation Officials (AASHTO). Bike and pedestrian lanes may be required on those roads deemed appropriate by the municipality.
 - 2. Require traffic impact studies for proposed developments. Such studies 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.
 - 3. Establish appropriate standards for driveway design and access to streets for access management. Coordinate with zoning ordinance design standards and access management provisions. Plans should be reviewed for access management concerns.
 - 4. Require developers to recognize existing and planned trails and to provide new trails. Standards for trails can be included in the Ordinances. Sufficient rights-of-way and easements may be required during the review process.
 - 5. Require developers to provide pedestrian paths and sidewalks to enhance foot traffic.
 - 6. Request right-of-way dedication along existing roadways to meet design standards.
 - 7. Require necessary roadway improvements along the frontage of developments.
 - 8. Review setback and building location policies along major road corridors to refine regulations that will facilitate future road improvements.

- C. Consider the adoption of Official Maps designating proposed public facilities, streets, intersection and road improvements, bike paths, and trails.
- D. Establish pedestrian pathway improvement programs to enhance foot traffic in the Region, as well as provision of trails to provide improved access to schools, local shopping areas, community facilities, and employment opportunities. ADA requirements should be complied with.
- E. Work with PennDOT to ensure adequate maintenance of roads with substantial volumes of truck and school bus traffic as well as automobile traffic.
- F. Consider the adoption of Transportation Impact Fee ordinances to be used by the Townships and Borough individually or jointly and require land developers to address needed transportation improvements in the Region.
- G. Work with PennDOT and the municipalities to establish appropriate speed limits, reducing them as necessary, in developed areas.
- H Prepare multi-year programs for street maintenance and improvement.
- I. Develop access management plans in cooperation with PennDOT to address access to major roads and access design standards. Encourage cooperative efforts of landowners to manage and share access.
- J. Encourage landowners to cooperate with PennDOT and the municipalities in the redesign of existing strip development areas to manage access and improve streetscapes.
- K. Coordinate utility and road improvements so that utilities are constructed before road improvements are made.
- L. Require property owners to keep street rights-of-way available for required improvements and pedestrian systems.
- M. Work together as a Region with the County, RATS, Legislators, and PennDOT to list needed transportation improvements on the Twelve-Year Transportation Program.
- N. Work with transportation organizations and agencies providing services to seniors to facilitate mobility of seniors by determining desired destinations and means of providing access to those destinations.

Reading Area Transportation Study (RATS)

The Berks County Planning Commission is the lead agency for the Region's Metropolitan Planning Organization, RATS. As the lead agency, the BCPC performs all tasks associated with the Unified Planning Work Program (UPWP). This includes Clean Air Act requirements, development of the PennDOT Twelve Year Program for Berks County, Transportation Enhancements, functional classification updates, and traffic volume counts.

Activities include:

- Transportation Planning Studies
- Development of the Twelve Year Program for Berks County
- Traffic Volume Counts
- RATS Transportation Improvement Program (TIP)

Recommended Road Improvements

Intersection Improvements, Realignment, and Widening Projects

The following transportation improvements in the Region should be included in future transportation capital improvement budgets, as well as the PennDOT Twelve-Year Program where applicable. These intersections or roads have been identified as having one or more of the following characteristics: poor sight distance; bad alignment; lack of proper signage or signalization; insufficient width; and / or lack of turning lanes.

	Jefferson Township	Penn Township	Bernville Borough
Suggested Intersection Improvements			
	New Schaefferstown Rd. and PA Route 183	Old Church Road and PA Route 183	Traffic Light at PA Route 183 and Third Street
	School Road and New Schaefferstown Road	Mt. Pleasant Road and PA Route 183	
		Add turn lanes to Shartlesville Road and PA Route 183	
		East Tulpehocken Drive and PA Route 183 Plum Creek Road and PA	
		Route 183	
Realignment/New Road Section			
	New Schaefferstown Road. and PA Route 183	Realign intersections of PA Route 183, Robesonia Road, and Beyerle Road	
Road Widening/Repairs			
	PA Route 183 and New Schaefferstown Road, widen shoulder for right turn	Shartlesville Road (at elementary school)	Main Street – repaving, improve grading and drainage
	School Road at New Schaefferstown Road	Plum Creek Road – Widen Bridge	
	Widen Koenig Road between Groff Road and Clubhouse Road		
	Tannery Road - Resurfacing		
	Smith Lane - Resurfacing		
Other Improvements			
	Host Church Road Bridge Repair	Recommend reduced speed limit in Mt Pleasant area	

LONG RANGE PLANNING

The Reading Area Transportation Study (RATS), the Metropolitan Planning Organization (MPO) for Berks County, was created in 1964 through a legal agreement between the City of Reading, Berks County, and the Pennsylvania Department of Highways (now the Pennsylvania Department of Transportation). According to the Federal-Aid Highway Act of 1962, any urban area with a population of more than fifty thousand people must maintain a continuing, comprehensive and cooperative ("3C") transportation planning process consistent with the comprehensively planned development of the urbanized area in order to be eligible to receive Federal funding for transportation projects. RATS enables Berks County to be eligible to receive state and federal funding for highway and transit system capital improvements and operations.

An area was delineated as the Reading urban area in accordance with the U.S. Bureau of Census boundaries for the Reading urbanized area and the identified area became the subject of continuous transportation planning which has proceeded from 1964 to date. In 1992, in response to both the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and the Clean Air Act Amendments (CAAA) of 1990, the study area was expanded to cover all of Berks County. This encompasses 864 square miles and includes 74 municipalities that have a 2000 Census population of 373,638. Additionally, the 2000 Census indicated that the Reading urbanized area contained a population of 240,264. On July 8, 2002, the Reading MPO was officially designated as a Transportation Management Area (TMA) and is therefore subject to additional planning regulations. This special designation applies to MPOs with an urbanized area of greater than 200,000.

There are two committees that comprise RATS: the Coordinating Committee and the Technical Committee. The Technical Committee is responsible for reviewing items brought before the group and recommending actions to the Coordinating Committee. The Coordinating Committee is the policy body that formally adopts items reviewed by the Technical Committee. The role of the MPO is to promote transportation plans, programs, projects and policies that are consistent with current federal transportation planning legislation and the Clean Air Act. The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) is the current planning legislation. The transportation planning staff of the Berks County Planning Commission serves as the technical staff to RATS.

RATS recognizes the interconnection between transportation and land use issues. The Berks County Planning Commission works closely with local governments throughout Berks County on land use planning issues. However, under Pennsylvania law, implementation of land use policies is the responsibility of local governments therefore RATS has no authority over local land use planning or zoning.

Increased development in the Region will undoubtedly impact the local transportation system. Therefore, it is important to discuss long range transportation recommendations to mitigate the implications of increased development. This section will present a vision for the future transportation network in the Region, including strategies for priority corridors, which were identified as the most critical to the Region in terms of a functioning transportation system.

Highest Priority Corridors - PA Route 183

PA Route 183 in the Region is the corridor most in need of future upgrades. This corridor has the highest traffic volumes and intersects the entire Region and is the largest designated growth area, where future residential, commercial, and industrial development is expected. This impending development will increase traffic in the corridor, and eventually surpass the highway's carrying capacity. The Region must coordinate efforts with PennDOT to implement a plan for this corridor.

High Priority Corridor- New Schaefferstown Road, Plum Creek Road

New Schaefferstown Road, though not currently experiencing substantial traffic problems, is a key corridor in the Region. New Schaefferstown Road is an east/west route through Jefferson Township. The Future Land Use Map, Figure 7.1 has designated the area around New Schaefferstown as a growth area which could lead to increased traffic on this road.

Plum Creek Road is a northeast/southwest corridor at the southern entrance of Penn Township. This road intersects PA Route 183.

Long Range Strategies

The corridors identified are State and municipally-owned and maintained highways. It is critical that the Townships and Borough continue communications with PennDOT and RATS, to discuss future planning and upgrades. Reactionary spot improvements will not suffice, and will ultimately lead to a poorly functioning transportation system. The Townships, Borough, PennDOT, and RATS need to agree on a vision for these corridors and plan accordingly to accommodate future development. Some of the improvements and concepts recommended by this Plan include the following:

• Road Widening: add travel and turning lanes to improve traffic flow. The Townships should include provisions for right-of-way preservation in their subdivision ordinances and develop standard design criteria to ensure seamless road corridors between Townships.

- Signal light coordination: new traffic signals should be located at least one-half mile apart. The cycle lengths of each light should be coordinated to allow for smooth traffic flow along the corridor. Signals with self-adjusting timing mechanisms can optimize flow at intersections. Higher density and village development should occur near signalized intersections, to lessen the need for additional signals.
- Access management: An effective transportation system cannot allow unlimited land access. Every additional driveway and street intersection introduces traffic and reduces the road's ability to move traffic safely and efficiently. Especially within the designated growth areas, it is imperative to limit the access points, particularly along PA Route 183. This applies to the Region's collector roads as well. The Townships and Borough must discourage subdivision along the frontages of main transportation corridors to lessen points of access. PennDOT has developed guidelines for municipalities to use when formulating their own access management regulations. The Townships and Borough should coordinate with PennDOT to develop access management regulations to include in their respective ordinances.
- Act 209 Traffic Impact Fee: Steps required to establish and implement a traffic impact ordinance are shown in Table 10.2.

Access Management

Access management is a concern for all of the roads in the Region, but particularly along PA Route 183 and New Schaefferstown Road and PA Route 183 and Third Street. The Townships and Borough should consider working with PennDOT to develop a joint access management plan for the area.

The major elements in access management include the following:

- Driveway design standards
- Access management regulations, in coordination with PennDOT.
- Limited number of road entrances
- Traffic Impact Analysis where development is proposed
- Left and right turn lanes constructed at road and driveway intersections
- Installation of medians
- Adequate parking lot/internal circulation design in developments
- Shared access to properties

- Interconnection of properties developed along roads
- Improved intersection design/spacing
- Signals at high volume driveways
- Control of access
- Direct new development access to roads with traffic signals.
- Prohibition of inappropriate turning movements

Transportation Development Districts

The Transportation Partnership Act (Act 47 of 1985 as amended) allows municipalities to create Transportation Development Districts to assist in the financing of transportation facilities and services including roads, railroads, and public transit systems. If municipalities propose a district, property owners who represent more than fifty percent of the assessed valuation in a proposed district must be in favor of the district. The creation of the Transportation Development District allows municipalities to impose assessments upon benefited properties in the District to construct transportation improvements. The needs for such districts along PA Route 183 should be monitored.

Congestion Management System Strategies

Congestion management system strategies have been used by some communities to reduce traffic. The major elements are:

- Employee trip reduction plans to increase average vehicle occupancy
- Creation of transportation management associations in which municipalities work with local businesses to identify measures to reduce travel demand. These may include:
 - -- reducing vehicle concentrations at peak periods by staggering work hours;
 - -- encouraging commuting by carpool and public transit rather than by single occupancy vehicles;
 - -- eliminating unnecessary commutes;
 - -- funding informal paratransit/vanpool operations.
 - -- utilization of rideshare services,

With the potential for more commercial and residential development in the Region, the appropriateness of these strategies should be reviewed. The Transportation Plan Map

includes Annual Average Daily Traffic (AADT) numbers for major road segments in the Region. High traffic volume areas, such as the PA Route 183 corridors, are most in need of congestion management techniques.

Impact Fees and Negotiated Financial Contributions

The Municipalities Planning Code allows municipalities to assess a traffic impact fee provided they have adopted a traffic impact fee ordinance. With a traffic impact fee system in place, a municipality can collect fees to finance improvements to the road system.

The Municipalities Planning Code indicates that when municipalities have prepared a multi-municipal plan, to allow for the provision of transportation capital improvements in a cooperative manner, the municipalities may cooperate to enact joint transportation impact fee ordinances.

In municipalities where traffic impact fee systems are not in place, financial contributions from developers for road improvements should be negotiated. Developer-financed road improvements at existing intersections and along road segments could correct current deficiencies and mitigate traffic increases associated with new development. Table 10.2 identifies the steps involved in setting up and implementing an impact fee ordinance.

Table 10.2: Summary of the Steps for Implementing Traffic Impact Fee Ordinance

<u>Task</u> Responsible Entity

1. Establish Transportation Service Area and appoint an advisory committee.

Governing Body

Note: Committee must be at least 7 members, can be the <u>entire</u> Planning Commission, with ad hoc members if necessary to meet the 40% builder/realtor requirement. Other than this, the committee <u>cannot</u> contain municipal officials or employees.

2. Public Notice of Intent to implement a Traffic **Governing Body** Impact Fee Ordinance.

Note: This allows for fees to start being collected <u>and</u> starts an 18 month clock, by which time the Ordinance must be adopted.

- 3. Committee oversees preparation of Land Use **Impact Fee Advisory**Assumptions plan, holds public hearing, forwards **Committee**to Governing Body for adoption.
- 4. Committee oversees preparation of Roadway
 Sufficiency Analysis and forwards to Governing
 Body for approval.

 Impact Fee Advisory
 Committee
- 5. Committee oversees preparation of Capital **Impact Fee Advisory** Improvements Plan, holds public hearing, forwards to Governing Body for approval.
- 6. Impact Fee Ordinance text developed and **Governing Body** Ordinance adopted.

Shoulder Improvements

Developers should be required to improve shoulders along the frontages of the tracts they develop. In addition, the municipalities should improve the shoulders along existing Township and Borough roads where appropriate. Shoulders should be wide enough to accommodate trails in accordance with the guidelines in the Statewide Bicycle and Pedestrian Master Plan. The Region's ordinances currently mandate these actions, and should continue to do so.

Gateways

Formal gateways should be considered at the entrances to the Region and Borough of Bernville along PA Route 183. A gateway is an entrance corridor that defines the arrival point as a destination. Gateway planning addresses the arrangement of the landscape to create a visual experience that establishes a sense of arrival at the destination and provides a positive image of the destination. The Borough and Townships can work with property owners to enhance these gateways. Consistent road corridor overlay zoning could be adopted along the major roadways.

The primary gateways to the Region include both ends of PA Route 183. Gateway enhancement opportunities also exist at the entrances to the Villages of New Schaefferstown and Mt. Pleasant. At these gateways, the Townships can work with property owners to enhance commercial areas through coordinated landscaping, signage, lighting, street furniture, paving materials, site improvement design, building facades, and window displays. When infill, redevelopment, or new development occurs, developers should be required to comply with performance and design standards that would address these elements. When new parking facilities are constructed, they should be landscaped, buffered, and located to the side or rear of buildings.

Signage should be minimal, and appropriate to the character of the Townships.

Property owners should be encouraged to maintain and improve properties, particularly those that may have negative impacts on surrounding properties. In places where the rear of commercial properties face or abut residential properties, the appearance of the commercial properties and their impact on the residences should be mitigated.

Scenic Roads

Scenic roads are an important element in the circulation system within the Region and should be maintained. Scenic roads include roadways that offer picturesque views of the surrounding countryside, or offer a pleasant drive under a canopy of trees. The Townships should decide whether it would be appropriate to adopt scenic road overlay zoning along scenic roads. Within such overlay areas, greater setbacks along the roads may be required, additional landscaping and screening requirements may be established, and design standards for siting of buildings may be established in order to minimize visual impacts of any development.

Discouraging intensive development along the scenic roads also has another benefit. It can lessen traffic volumes and driveway intersections along roads, which are typically not suited for intensive traffic volumes.

Bicycle/Pedestrian Circulation

The Borough and Townships should incorporate bicycle and pedestrian improvements into the transportation planning process. The Community Facilities Plan recommends that the Townships strengthen their zoning and subdivision ordinances to ensure that bicyclists and pedestrians are accommodated in the transportation system. As roads are maintained and improved, design requirements for pedestrian and bicycle access should be addressed, such as the provision of bike lanes, sidewalks, and appropriate curb radii at intersections. Limiting radii at intersections to the minimum necessary to allow safe traffic flow can make intersections more pedestrian and bicycle friendly. According to the U.S. Department of Transportation, a curb radius measurement of zero to ten feet is safest for pedestrians. Pedestrian crossings at street intersections, particularly along the trail routes, should be facilitated by crosswalks, stop signs, and pedestrian islands. Gaps in the sidewalk system (where feasible) should be eliminated. New developments, particularly within Designated Growth Areas, should have sidewalks. community facilities and commercial areas in the Region should be enhanced through expanded and repaired sidewalks and greenways and by establishing crosswalks. Streetscape amenities such as benches, trash receptacles, information signs, and landscaping should be provided in the villages where appropriate.

The Recreation component of the Community Facilities Plan, Chapter 9, recommends a greenway and bike trail network for the Region.

Safe Routes to School

This program is designed to work with school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to schools. Collectively, these efforts would save on school busing costs and promote a healthy lifestyle for children. In addition, some funding may be used for pedestrian education efforts. Examples of these types of improvements include sidewalks, crosswalks, bike lanes or trails, traffic diversion improvements, curb extensions, traffic circles, and raised median islands.

Traffic Calming

As development in the Region occurs and traffic volumes increase, residential streets and roads will have more traffic. Means of dealing with this additional volume include road improvements, providing increased opportunities for pedestrian and bicycle traffic, supporting efforts to increase automobile occupancy rates, and managing access. If these steps are not sufficient, the municipalities may consider traffic calming techniques.

The purpose of traffic calming is to manage movement through an area in a way that is

compatible with the nearby land uses. Streets should be safe for local drivers, and traffic should not adversely affect the quality of life of residents.

The general methods of traffic calming include the following:

- Active speed reduction (constructing barriers to traffic movements)
- Passive speed reduction (installation of signage)
- Streetside design (landscaping that changes the appearance of the area and driver attitudes)
- Regional planning efforts that direct external traffic to other routes
- Opportunities for use of alternative modes (mass transportation, pedestrian, bicycle)
- 1. Active Speed Reduction (constructing barriers)
 - a. Speed humps and speed tables are raised areas in the street surface that extend across the width of the street. Speed humps present liability and are also annoying to local residents. Speed tables, which are really raised pedestrian crosswalks, may be more successful. They are most appropriate in areas with substantial pedestrian traffic.
 - b. Changes in roadway surface may include rumble strips, milling, and special roadway surfaces. These techniques can increase noise in areas and raise objections from area residents.
 - c. Intersection diverters may involve a barrier placed across an intersection, typically to alter travel plans, such as permitting right turns only, to make travel through a neighborhood more indirect.
 - d. Channelization may involve provision of pedestrian refuge areas, providing protected parking bays through landscaped islands, altering motor vehicle traffic movements, and restricting movements at intersections by narrowing the space available for vehicular movement.

The active controls require changes in driver behavior. Although active methods convey that the street is not just for through traffic, such methods are costly, and can be viewed negatively by some.

2. Passive Methods of Control

- a. Traffic signs saying "Do Not Enter", "Stop", "Not a Through Street", "Local Access Only", "No Trucks", or signs establishing speed limits, indicating one-way street, or prohibiting turns.
- b. Traffic signals.
- c. Pavement markings, including crosswalks, edgelines, and use of different materials for pedestrian crosswalks.
- d. Permitting on-street parking.
- e. Speed watch.

These methods have lower costs and can apply to only certain times of the day, if appropriate; however, signs are often ignored and enforcement is necessary.

The main emphasis should on the passive traffic calming techniques. Active traffic calming techniques should be used only if passive techniques are not successful due to their cost and the inconvenience of their construction.

Prior to implementing any traffic calming program, it is necessary to identify the specific problems to be addressed; identify and evaluate the alternative techniques and their drawbacks, benefits, and cost; to identify alternative traffic patterns that could result from implementation of the techniques and the effects of those patterns on other streets and neighborhoods; and to involve residents in the evaluation and selection of techniques. Such techniques should not detract from the character or visual quality of a neighborhood.

Capital Improvements Planning

Capital Improvements planning should be considered for programmed transportation improvements. Capital improvements planning includes financial analysis of past trends in the community, present conditions, and a projection of the community's revenues and expenditures, debt limit, and tax rates, to determine what the financial capabilities of the municipality are. It also includes a capital improvements program which establishes a system of priorities. The final element is the capital budget which lists the schedule of improvements over a 5-year period on the basis of the community's financial capacity and availability of grant money.

In the capital improvements program, capital expenditures are separated from Operational expenditures. Operational expenditures are those for administration, payroll,

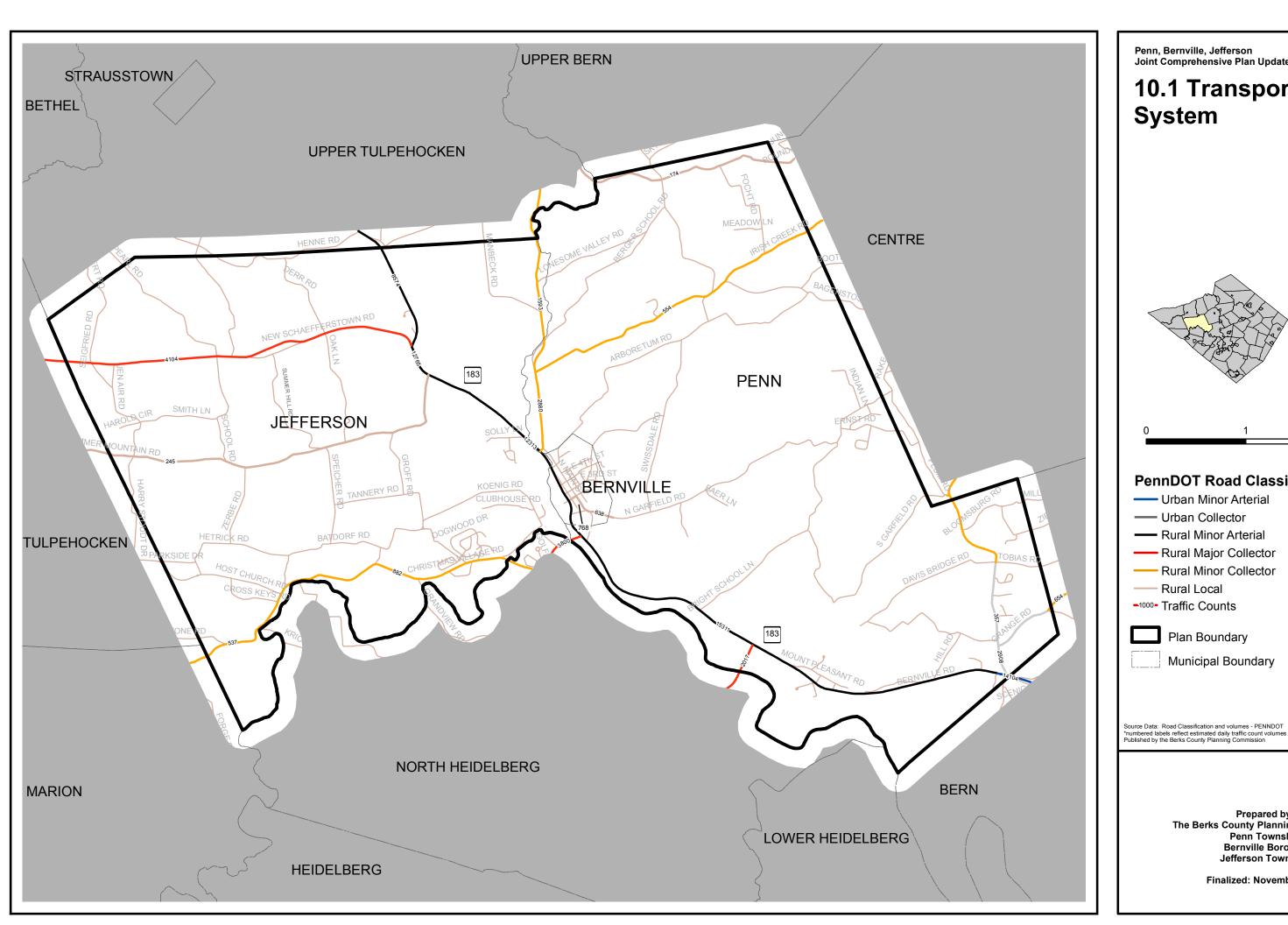
employee benefits, maintenance and similar functions, and are short term. Capital expenditures are for assets which have a substantial value compared to the total municipal budget and are expected to provide service for a number of years. The construction of a road is an example of a capital expenditure.

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 municipality can anticipate major expenditures prior to the budget year. The program is based on identified capital needs, goals for capital acquisitions, and a priority list of all proposed capital expenditures.

A time frame is established for the capital improvements program. Five-year programs are typical. Every year the schedule for capital improvements must be revised and updated as necessary, based on the current municipal priorities. For each project included in the program, estimated costs must be established and a budget prepared.

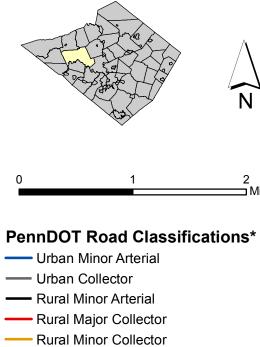
Benefits of capital improvements programs include the following:

- It ensures that projects will be based upon the ability to pay and upon a schedule of priorities determined in advance.
- It helps ensure that capital improvements are viewed comprehensively and in the best public interest of the municipality as a whole.
- It promotes financial stability by scheduling projects at the proper intervals.
- It avoids severe changes in the tax structure by the proper scheduling of projects and facilitates the best allocation of community resources.



Penn, Bernville, Jefferson Joint Comprehensive Plan Update

10.1 Transportation System



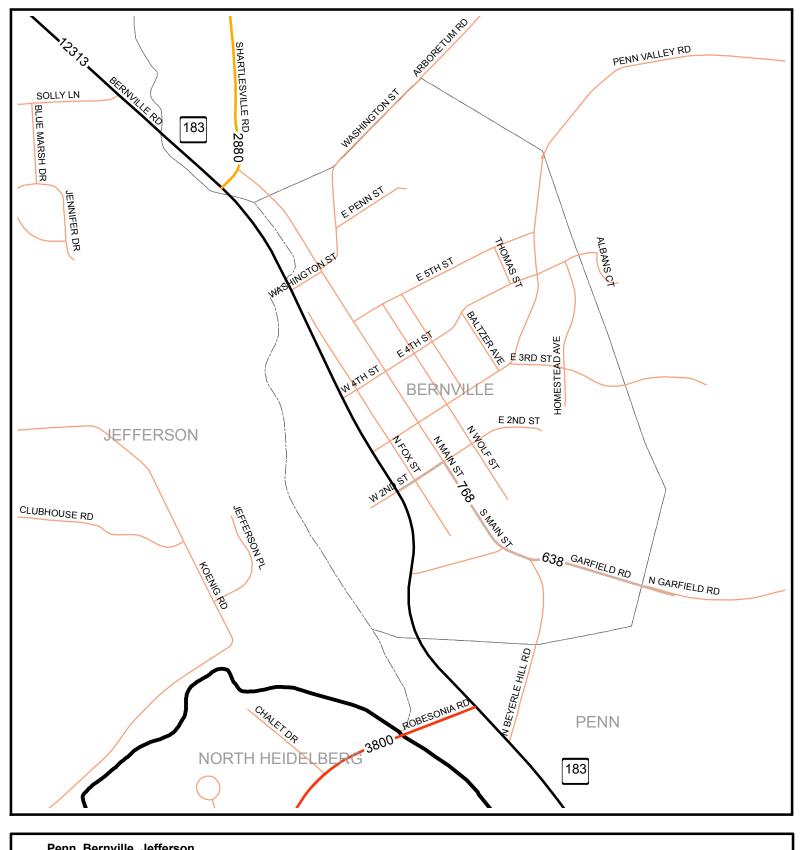
---- Rural Local **-**¹000**-** Traffic Counts

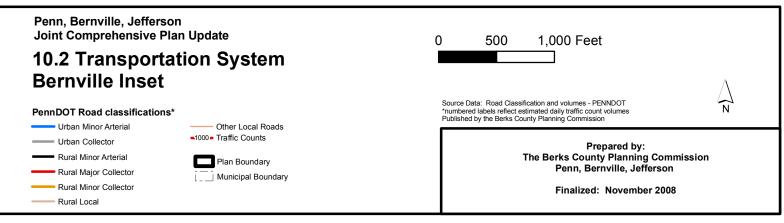
Plan Boundary

Municipal Boundary

Prepared by: The Berks County Planning Commission Penn Township Bernville Borough Jefferson Township

Finalized: November 2008





Chapter 11 Natural Resources Plan

Introduction

The Pennsylvania Municipalities Planning Code (MPC) requires that municipal Comprehensive Plans address resource preservation, specifically identifying natural, cultural, and historic resources. The natural resources noted by the MPC are wetlands and other aquifer recharge zones, woodlands, steep slope areas, prime agricultural land, floodplains, and "unique natural areas." The MPC adds that municipalities are not limited by this list, but may provide for the protection of other resources of local importance. In addition to these resources, this chapter will identify energy conservation objectives for the planning Region. Prime agricultural land has been previously discussed in Chapter 7, the Future Land Use Plan. Historic Resources are addressed in Chapter 12, the Historic and Cultural Resources Plan.

The results of the citizen survey indicated that the Region's residents are concerned about natural resource preservation. Respondents also indicated a high level of interest in farmland and open space preservation.

NATURAL RESOURCES PLAN

Natural resources contribute to the economic activity, environmental health, and quality of life of a community. Parks, open space, woodlands, steep slopes, streams, wetlands, and farmlands are all resources that are aesthetically pleasing, and provide economic as well as environmental benefits. One example of this is the way that floodplains and wetlands act as natural storage basins in periods of high water and help to improve water quality by filtering out sediment and pollutants.

Natural and Scenic Resources

Goal: Protect and preserve the natural and scenic resources and beauty of the region.

Natural and Scenic Resources

Objectives:

- Encourage new planting of trees within developments.
- Encourage the preservation of scenic road corridors and viewsheds along them through retention of the character of rural-agricultural areas.

- Establish standards and processes for developers to respect and develop in accordance with land suitability and carrying capacity, preserve and protect environmental resources and quality, preserve unique natural features, and analyze and mitigate impacts of development.
- Encourage improvement of degraded views along road corridors in the Region.
- Require development to be sensitive to natural drainage ways.
- Protect groundwater aquifers and recharge areas from pollution through standards in municipal ordinances.
- Protect watersheds and wellhead areas for municipal water supplies.
- Protect steep slopes within stream corridors.
- Monitor the protection of "protected" lands to encourage their continued protection.
- Protect stream corridors and their watersheds in the Region.
- Protect the night sky from excessive light pollution through lighting standards in ordinances.
- Protect wildlife habitats within stream corridors and woodlands.
- Maintain and initiate partnerships with conservancies to protect the Region's natural resources such as wooded areas and stream corridors.
- Implement the recommendations and best management practices of the Tulpehocken Creek Watershed and Schuylkill River Watershed Stormwater Management Plans.

GEOLOGY

Penn Township, Jefferson Township, and Bernville Borough are located in northwestern Berks County within the physiographic region known as the Appalachian Highlands Region, Great Valley Section of the Ridge and Valley Province. The Appalachian Highlands Region is one of eight physiographic regions found in the United States. The U.S. Physiographic regions are: Canadian Shield, Atlantic Plain, Appalachian Highlands,

Interior Plans, Interior Highlands, Rocky Mountain System, Intermontaine Plateaus, and Pacific Mountain System. These geomorphic or physiographic regions are broad-scale subdivisions based on features such as terrain, rock type, and geologic structure and history. These Regions are further broken down into provinces and then into sections based on their geologic formations. This three-tiered system of classification (division, province, and section) was introduced by Nevin Fenneman in 1946.

The Region is part of the Appalachian Highlands Region, Great Valley Section of the Ridge and Valley Province. The Great Valley Section consists of a very broad lowland that lies south of Blue Mountain in Southeastern Pennsylvania. This area has rolling hills, shallow valleys, and isolated hills. The underlying rock structure is shale, sandstone, slate, limestone, and dolomite. The area was formed from fluvial erosion and has the distinct characteristic of having red soils. Different geologic formations, also known as bedrock, contain various chemical and physical characteristics and levels including mineral content, water bearing capacities and suitability, hardness, and strength.

Berks County is in the Appalachian Highlands Region, with portions in the Great Valley and Blue Mountain region of the Ridge and Valley Province, the Reading Prong region of the New England Province, and the Triassic Lowland of the Piedmont Province. The Blue Mountain is the northern border of the county. The Appalachian Highlands Region is characterized by rounded, forested landscape with an elevation of 6,000 feet or less on average. Three of its seven provinces are located in Berks County: Blue Ridge Province, Ridge and Valley Province, and Piedmont Province.

- Blue Ridge Province Characterized by linear ridges, deep valleys, and flat uplands. Relief in this area is between 301 and 1,000 feet with elevation ranges between 450 and 2,080 feet. The area was formed by fluvial erosion of variable rocks with some peri-glacial mass wasting. A dentritic drainage pattern exists in this section.
- Ridge and Valley Province Consists of broad lowland karst terrain with a relief between 101 to 600 feet with elevation ranges between 140 and 1,100 feet. The area was formed by fluvial erosion of variable rocks with some peri-glacial mass wasting. A dentritic drainage pattern exists in this section.
- *Piedmont Province* Consists of three sections: the Gettysburg Newark Lowland, the Piedmont Lowland, and the Piedmont Upland.
 - o *Gettysburg-Newark Lowland* consists of rolling lowlands, shallow valleys, and isolated hills. The elevation ranges from 20 to 1,355 feet with relief ranging from 101 to 600 feet. It has dendritic and trellis drainage patterns, was formed from fluvial erosion and has distinctive red soils.

- Piedmont Lowland Has elevations from 60-700 feet and relief from 101-300 feet. It was formed from fluvial erosion and some peri-glacial wasting and has dentritic and karst drainage patterns. This section consists of broad, moderately dissected karsts valleys separated by broad low hills.
- Piedmont Upland Characterized by broad, rounded to flat-topped hills and shallow valleys. It was formed by fluvial erosion and some peri-glacial wasting. The relief for this area is 101 to 600 feet with altitudes between 100 to 1,220 feet.

WATER RESOURCES

Streams, creeks, and lakes provide scenic resources, aquatic habitat, and recreational opportunities. Water is used daily for residential, agricultural, industrial and commercial use. Streams and creeks provide potential recreational areas, water sources, and valuable aquatic habitats, while knowledge of drainage basins is necessary in designing sanitary sewers and storm sewers. It is of critical importance to protect our water resources and our watershed areas from pollution. Rivers, creeks, and streams flow through several townships, counties, and states so protection of these areas has been divided into watershed areas.

The Region is in the Tulpehocken Creek Watershed and the Schuylkill River Watershed. The Penn/Jefferson/Bernville planning region is located within the Delaware River Basin, Subbasin Number 3 (The Lower Delaware), Watershed C (Tulpehocken Creek) and the Schuylkill River watershed. These watersheds have been designated by the DEP under Act 167 of 1978, the Stormwater Management Act, and are required to have a stormwater management plan in place.

The Tulpehocken Creek and the Northkill Creek are the two largest streams that flow through the Bernville-Jefferson area. The Northkill Creek forms the eastern boundary of the Township and the western border of the Borough. The Tulpehocken Creek forms the southern boundary of Jefferson Township and joins the Northkill Creek near the southwest corner of the Borough and turns southeast eventually flowing into the Schuylkill River at Reading.

Seven miles south of Bernville, the Tulpehocken Creek was dammed by the U.S. Army Corps of Engineers forming Blue Marsh Lake. Blue Marsh Lake extends northward to the Bernville area along the Penn Township border.

Several small creeks and streams flow through the area. These include the Little Northkill Creek (which flows south along PA Route 183 to the Northkill Creek), the Mill

Creek (which flows along the southern side of Host Church Road to the Tulpehocken Creek) and other unnamed tributaries.

The Tulpehocken Creek is designated a scenic river by the Pennsylvania Department of Environmental Protection (PADEP) and is also a historic district. The historic district contains and protects the scenic river corridor, remnants of the old Union Canal which lies on the north bank and historic buildings, bridges and other structures along the creek. Currently no scenic or historic designations exist for the Northkill Creek or other streams in the area.

PADEP considers this section of the Tulpehocken Creek and its unnamed tributaries to be trout stocking fisheries (TSF). These areas contain warmer water and contain flora and fauna conducive to trout stocking, maintenance and propagation. The Northkill Creek is designated a cold water fishery (CWF) by PADEP. PADEP defines cold water fisheries as streams which are necessary for the maintenance and propagation of cold water fish and other flora and fauna indigenous to cold water habitats.

The Army Corps of Engineers owns and maintains several acres of flood prone land within the western edge of the Borough and southeast corner of Penn Township. In addition, 100-year floodplains parallel each of the area's creeks. The most significant floodplain areas occur along the Tulpehocken Creek, Northkill Creek, Little Northkill Creek and Mill Creek. Numerous pockets of wetlands are found along the stream corridors. Smaller pockets of wetlands are found in other hydric soil and high water table soil areas.

FLOODPLAINS

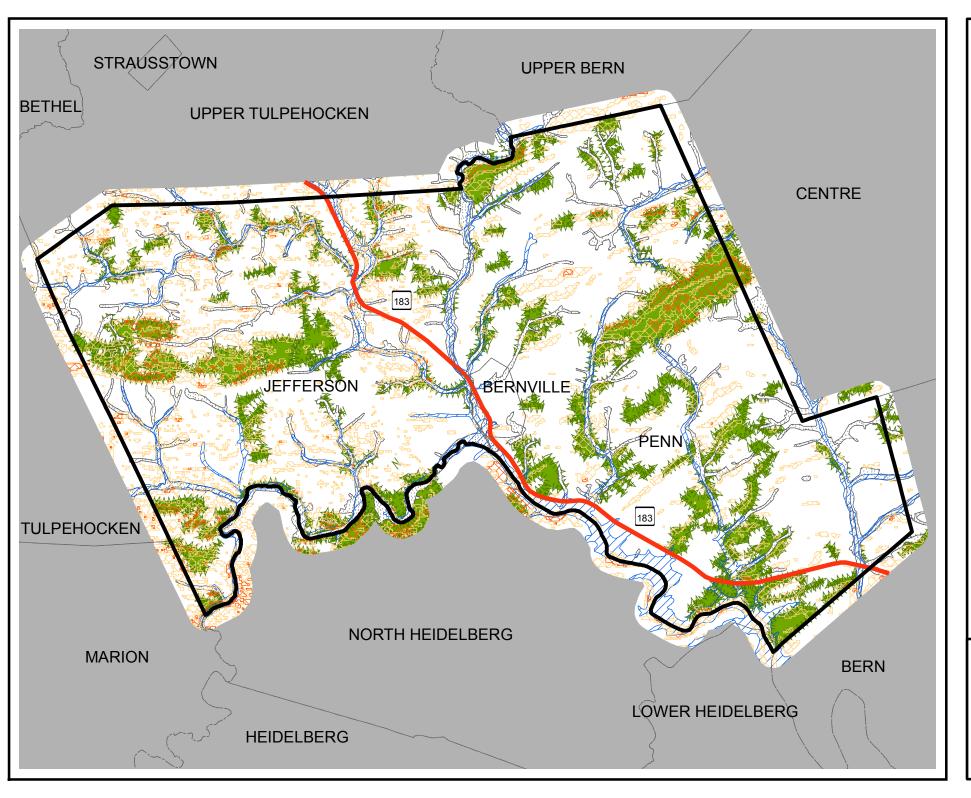
Floodplains are areas adjacent to rivers and streams which are subject to flooding during periods of excessive precipitation. The floodplain holds the excess water allowing it to seep into the groundwater and slowly drain back into the waterway. A 100-year floodplain is the area adjacent to a river or stream which has a one percent chance of being flooded during any one year, and is typically used for regulatory purposes. Floodplains should not be developed, due to the potential for damage to persons and property. If development occurs within the floodplain, it may limit the floodway, resulting in increased damage downstream because of resulting increased velocities of the floodwater downstream. Outdoor storage of materials within floodplains is not desirable because of the possibility of the materials being swept into the stream when flooding of the banks occurs. One hundred-year floodplains are shown from Federal Emergency Management Agency (FEMA) Maps. Detailed studies and calculations have not been performed to establish the extent of the 100-year floodplains for all watercourses. Any development proposed in the vicinity of watercourses would require the developer to obtain a calculated study of the 100-year floodplain if such studies have not been

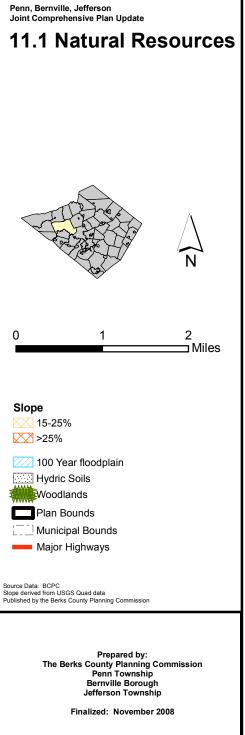
performed by FEMA. The 100-Year Floodplain for the Region is depicted on Figure 11-1 and 11-2, The Natural Resources Maps.

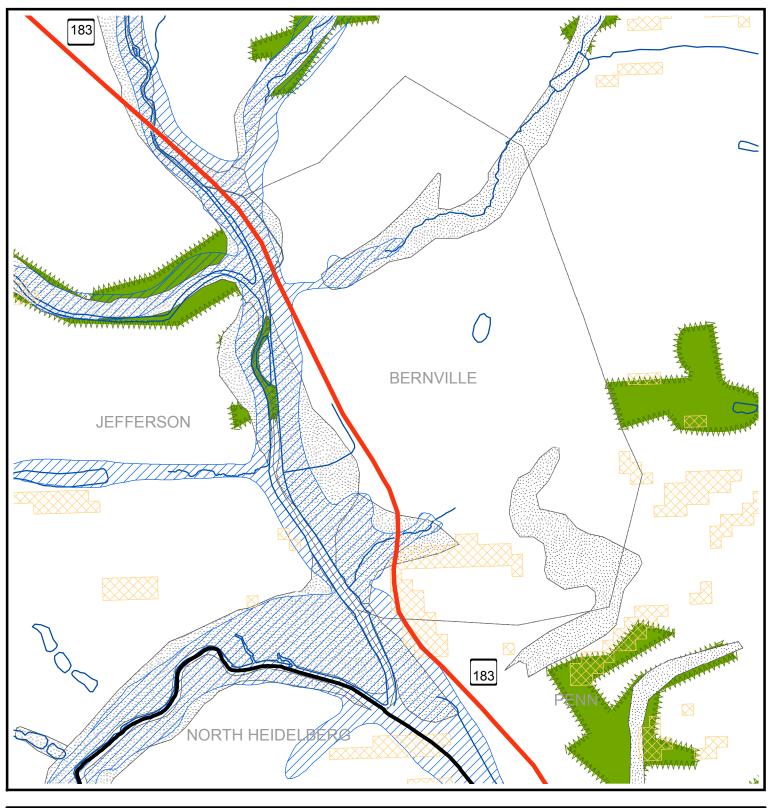
Care must be taken in disturbing areas along watercourses because increased sedimentation within the stream (increased depositing of soil within the stream) can occur. Increased impervious cover along watercourses typically increases the volume of storm water runoff into the streams. This additional runoff can erode stream banks and channels. If sedimentation increases, streambeds may fill, causing floodwaters to affect a larger area.

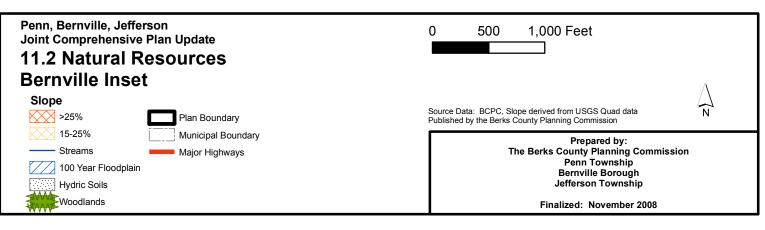
Flood areas for Blue Marsh Lake extend up the Northkill Creek to the PA Route 183 crossing to form a physical barrier between the Borough and Jefferson Township. Blue Marsh flood areas also extend up the Tulpehocken Creek to an area just south of the Heidelberg Country Club and into the Borough along a small unnamed tributary of the Northkill as depicted on Figure 11-1 and 11-2 The Natural Resources Maps.

Wet (or "hydric") soils and floodplains along watercourses should be preserved from development in the interest of environmental preservation. These hydric soils areas act like a sponge when floodwaters rise and when coupled with established wetlands, they filter out nutrients and other pollutants. Hydric soils protect the quality of the groundwater and slow the storm runoff into local surface waters, all of which ultimately flow into the Susquehanna River. Impervious surfaces should be restricted from stream bank areas in order to facilitate absorption of storm runoff into the ground. Such increased absorption can help to replenish groundwater and to decrease flood peaks, as less runoff will flow directly into the stream. Inadequate supply of groundwater may result in reduced flows of water in a stream during dry months, and the inability to sustain stream flow can mean a greater concentration of pollutants at periods of low flow.









WETLANDS

Wetlands are generally found along rivers and streams and in areas subject to frequent flooding, and are characterized by soil type and the presence of hydrophytic ("waterloving") vegetation. Wetlands are typically rich in plant growth and provide habitat for a variety of animals. Wetlands can protect water sources by acting as a natural filter, removing pollutants such as bacteria and sediment from surface water before it enters the ground. Development activity, including the placement of fill material, is regulated by the Pennsylvania Department of Environmental Protection and the U.S. Army Corps of Engineers.

The wetlands depicted on the Natural Resources Maps (Figures 11.1 and 11.2), are from the National Wetlands Inventory, prepared by the Office of Biological Services, U.S. Fish and Wildlife Service. The wetlands inventory was prepared by stereoscopic analysis of high altitude aerial photographs, with the wetlands identified based on vegetation, visible hydrology, and geography. A detailed ground level 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. The wetlands in the Region are dispersed throughout the Region.

HYDRIC SOILS

Hydric soils are soils that are flooded, ponded or saturated long enough during the growing season to develop anaerobic (without oxygen) conditions. They are typically poorly drained and have a shallow water table. Lack of oxygen in the soil leads to certain characteristics of wetlands soil such as: non-decomposed plant material, oxidized root channels, and concentrations and depletions of iron and other elements. These soils, if undrained, may exhibit wetland vegetation and be an indicator of wetlands. Hydric Soils are noted on the Natural Resources Maps.

FORESTED AREAS

Forested areas provide shade, reduce pollution, act as noise barriers, prevent erosion, provide recreational and scenic enjoyment, produce oxygen and provide a habitat for birds and animals. Vegetation cover and root systems of the forest ecosystem protects against erosion and stabilizes the soil. Woodlands are areas which contain primarily second and third generation forests. Knowledge of woodland areas is important for the following reasons:

The Region has a significant amount of forested areas overall. Bernville has an insignificant amount of woodland but both Jefferson and Penn Townships have several stands of woodlands. Many of these woodlands are found in areas which were unsuitable

for farming such as areas with rocky soil, steep slopes, and floodplains and along stream banks and drainageways.

Forested areas include deciduous, evergreen, and mixed forest. Deciduous forests are characterized by shedding of leaves in the fall, 30-60 inches of annual rainfall, and the presence of seasons. Examples of Deciduous trees are: Maple, Oak, Elm, and Birch. Evergreen forests consist primarily or entirely of evergreens, or trees that retain their foliage all year long. Pine and fir trees are examples of evergreen trees. Mixed forests have both deciduous and evergreen trees. Forested areas are mapped on Figure 11-1 and 11-2, the Natural Resources Maps.

STEEP SLOPES

The topographic features of the landscape derive from the structure and weathering characteristics of the underlying bedrock. The more weather-resistant rock is responsible for areas of higher elevation, while less resistant rock, such as limestone, tends to erode to form low-lying valleys.

Slope is measured by the change in vertical elevation (the "rise") over some horizontal distance (the "run"). This measurement is then expressed as a percentage. For example, if the ground rises two feet over a distance of twenty feet, then the slope is 2/20, or 10 percent. Areas that have slopes greater than 15 percent are deemed to have severe limitations to development. In general, development of such land can result in hazardous winter road conditions, costly excavation, erosion and sedimentation issues (a particular concern where the land may be cultivated), and accelerated velocity of stormwater runoff. Furthermore, conventional on-lot sewage disposal systems will not function properly where slope exceeds 15 percent. While specially designed systems will work in such areas, even custom installations will not function when the slope exceeds 25 percent. In steep areas, development should be controlled such that natural vegetative cover is maintained to the greatest extent possible, and erosion controls instituted. Without such cover, stormwater runoff can rapidly erode the slopes. The steep slopes for the Region, including the 15 to 25 percent, and the greater than 25 percent slopes, are shown on Figure 11-1 and 11-2, The Natural Resources Maps. The steep slopes are predominately in the Townships, with Penn Township having a significant area of steep slopes in the central and eastern portion of the Township with a few additional areas scattered across the rest of the Township. The majority of steep slopes in Jefferson Township are located in the western half of the Township both in the southwestern corner and a large area in the center of the Township. Bernville was founded on fairly level land near the coming together of the Northkill and Tulpehocken Creeks and has very few areas of steep slopes.

GROUND WATER SUPPLIES

Groundwater exists below the surface in moisture contained within the soils and the water table. This is the source of water for public and private wells and replenishes rivers and streams. Precipitation recharges groundwater as it infiltrates downward through soil and rock openings to the water table.

Groundwater that exists below the land in the water table is located within an aquifer. An aquifer is a geologic formation within the saturated zone which contains enough permeability to store and transmit usable amounts of water.

Penn Township, Jefferson Township and Bernville Borough are located within the Valley and Ridge Aquifer. The geology of this region was formed during the Ordovician Age and consists primarily of Martinsburg Shale with only a very small area of Leesport Cement Rock. Ordovician Age formations are considered to yield small to moderate amounts of groundwater.

Martinsburg Shale is a dark-gray shale, which is sandy toward the top. Martinsburg Shale is the parent material and forms the base of the Berks-Weikert-Bedington soil association. The Berks-Weikert-Bedington soil association contains shallow to deep well-drained, rolling soils formed in material weathered mainly from shale and siltstone. Leesport Cement Rock is a dark argillaceous to shaley limestone and the parent material and base of the Ryder-Fogelsville soil. The Ryder-Fogelsville association contains moderately deep and deep, well-drained, silty soils that are undulating and formed in material weathered from cement rock.

SOILS

Several soil types exist within the Region. Analyzing soil type is important to evaluate how well the soil can support septic systems or agriculture. Soils and their characteristics are the result of the geology of an area.

Soils are classified into eight classes, beginning with I and ending with VIII. Class I soils are the highest rated and have few restrictions on uses. Class VIII soils are limited in use based on severe slope and their propensity towards erosion.

Agriculturally productive soils are Class I through IV. Class I and Class II agricultural soils are considered prime agricultural soils and indicate where the best farmland is located. Class III soils have limitations in their ability to support certain crops and require additional conservation practices. Classes IV-VII are considered the least favorable for agricultural use because of their severe limitations to farming.

The definition of "prime farmland" has been established nationwide by the U.S. Department of Agriculture to include Class I and Class II soils. These are the classifications used by the Agricultural Preservation Board to determine eligibility in the Berks County Agricultural Easement Program. Prime farmland has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soils are permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods of time, and it either does not flood frequently during the growing season or is protected from flooding. Figure 7.2 identifies prime farmland as well as soils defined by the Commonwealth of Pennsylvania as "farmland of statewide importance" based upon conditions specific to Pennsylvania.

Stewards of prime farmland soils should recognize that soil properties are only one of several criteria that make for "prime" soil. Other factors include land use, frequency of flooding, irrigation, water table, and susceptibility to wind erosion.

- Land use Prime farmland is designated independently of current land use, but it cannot be areas of water or urban or built-up land.
- **Frequency of flooding** Some soil types include both prime farmland and land not prime farmland because of variations in flooding frequency.
- Irrigation Some soil types include areas that have a developed irrigation water supply that is dependable and of adequate quality along with areas lacking such a supply. For these soil types, only the irrigated areas meet the prime farmland criteria.
- Water table Some soil types include both drained and undrained areas; only the drained areas meet the prime farmland criteria.
- Wind erodibility Susceptibility to erosion by wind is determined by a combination of soil characteristics and the climate. Due to varying climatic conditions, it is possible for a single soil type to be prime farmland in one part of a survey area but not in another.

Bernville has few remaining farmed parcels. A small area in the south of the Borough which is farmable contains Class II and Class III soils. The remaining farmable area at the Borough's northern boundary contains Class II, Class III and Class VI agricultural soils.

Jefferson and Penn Townships contain significant areas of farmland. Much of the existing farmed land contains either Class II or Class III agricultural soils. There are

significant quantities of Class IV through VIII in Penn Township. These areas contain mostly woodlands and steep slopes. The Region has no Class I soils.

On-site sewage disposal systems should not be located within areas containing hydric soils that are subject to flooding because of the danger of contamination of the stream and the groundwater due to 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.

The hydric soils and floodplains found along the tributaries and watercourses within watersheds should be preserved. Serious consideration should be taken to limit development on hydric soils. These floodplains and hydric soils 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 that feed the various streams and lakes within the Region.

In general, soils which are steeply sloped, shallow, stony or poorly drained are considered unsuitable for on-lot systems. Soil suitability for on-site septic systems is not an important issue in areas served by public or private community sewage systems, such as in Bernville and the Heidelberg Country Club area of Jefferson Township. Soil suitability for on-site septic systems is a critical issue for existing and future development within the Region.

Few areas within the Region contain soils suitable for on-lot septic systems. Smaller lots within the Region such as those in New Schaefferstown, Jefferson Township, may encounter problems as existing systems begin to fail. Existing soil characteristics will also hinder new development from occurring in specific areas without the extension of public or private community sewage systems. Existing community sewage systems may need to be extended to accommodate existing and new development in the future.

SIGNIFICANCE OF NATURAL AREAS

The importance of natural resource protection is summarized below:

Floodplains	Floodplains Importance
Areas adjacent to rivers and streams which are covered by flood water during excessive precipitation.	 Can constrict floodwater flow, increasing the potential for flood damage Wildlife habitats can be harmed or destroyed Development poses a risk to people and property Outdoor storage can be washed downstream during flooding. This can have a multitude of problems ranging from polluting the water and surrounding areas with either chemical pollutants or debris Development can detract from the esthetic and recreational value On-site sewage disposal can contaminate ground and surface water Preservation of wet or "hydric" soils
Water Courses	Water Courses Importance
Watersheds of streams are important for planning and management of stream conservation and protection, water supply budgeting planning, watershed based zoning, stormwater management, and integrated resource planning. Wetlands Areas that are subject to frequent flooding or saturated by surface or groundwater at a frequency and duration sufficient to support vegetation typically adapted for life in saturated soil conditions.	 Scenic resources Aquatic habitats Recreational resources Protected status limits the effluent from a point source discharge Wetlands Importance Plant and animal habitats Plants act as natural filters of pollutants from waters Unsuitable for development and on-site sewage disposal Reduce flooding by detaining stormwater Replenishes groundwater and surface water through stored water
Steep Slopes	Steep Slopes Importance
Steep Slopes are measured by the change in vertical distance over the change in horizontal distance. This number is then shown as a percentage. A steep slope of 15% will have 15 feet of vertical change in elevation over 100 feet of horizontal distance.	 Stormwater runoff can rapidly erode the slopes Can result in hazardous driving conditions in the winter from development of roads and driveways Difficulty in road maintenance Increased building costs due to excavating, and consideration of erosion controls Stormwater runoff problems and erosion issues, especially in the absence of vegetative cover Conventional on-site sewage disposal systems will not work properly with slopes greater than 15%

Forested Areas	Forested Areas Importance		
Woodlands are areas that are covered by woods or trees.	 Stabilize soil against erosion Scenic Resources Wildlife habitats Provide visual relief Birding and hunting areas Buffer development Air purification Absorb stormwater runoff 		
Hydric Soils	Hydric Soils Importance		
Soils that have shallow depth to seasonally high water table. Potential wetlands, with need for further analysis.	 Unsuitable for development and on-lot sewage disposal Flooded basements and poor foundation stability (if built upon) Natural recharge areas which can reduce flooding and manage stormwater runoff Filter surface water 		
Groundwater Supplies	Groundwater Supplies Importance		
Groundwater enters through soil and creeks.	 Public water systems and private wells are usually dependent upon groundwater supplies Groundwater supplies are affected by development which reduces recharge and pollutes groundwater High water withdrawals can affect other water supplies 		

UNIQUE NATURAL AREAS

Berks County Natural Areas Inventory

The Berks County Natural Areas Inventory (NAI) is a document compiled and written by the Pennsylvania Science Office (PSO) of the Nature Conservancy, and updated by the Berks County Planning Commission. It contains information on the locations of rare, threatened, and endangered species and of the highest quality natural areas in the County. Each site description contained in the Inventory is accompanied by general management recommendations that would help to ensure the protection and continued existence of these rare plants, animals, and natural communities.

There are no recognized sites in the Region.

Riparian Buffers

Riparian buffers are particularly important to protect water resources because of the number of resources along watercourses, including floodplains, wetlands, hydric soils,

woodlands, and steep slopes. A riparian buffer is an area of vegetation that is maintained along the shore of a water body to protect stream water quality and stabilize stream channels and banks. Riparian buffers should be maintained along the Tulpehocken Creek and Northkill Creeks and their tributaries. Requirements for such buffers should be incorporated into zoning and subdivision and land development ordinances.

Buffers provide the following benefits:

- Filter runoff Rain that runs off the land can be slowed and infiltrated in the buffer, settling out sediment, nutrients and pesticides (nonpoint source pollution) before they reach streams.
- Take up nutrients Fertilizers and other pollutants that originate on the upslope land are taken up by tree roots. Nutrients are stored in leaves, limbs and roots instead of reaching the stream. Through a process called "denitrification," bacteria in the forest floor convert nitrate to nitrogen gas, which is released into the air.
- Provide shade The leaf canopy's shade keeps the water cool, allowing it to retain more dissolved oxygen, and encouraging growth of plants and aquatic insects that provide food for fish.
- Contribute leaf food Leaves that fall into the stream are trapped on fallen trees and rocks where they provide food and habitat for organisms critical to the aquatic food chain.
- Provide habitat Streams that travel through woodlands provide more habitat for fish and wildlife. Woody debris provides cover for fish while stabilizing stream bottoms.
 - Provide migration corridors for wildlife.
 - Safeguard water supplies by protecting groundwater recharge areas.
 - Provide flood control.
 - Provide stormwater management potential natural vegetation provides a basis for innovative stormwater management systems. Stormwater flows from retention basins can be directed to, and allowed to flow through, buffers to reduce nutrient and sediment loads.
 - Improve water and air quality.

- Stimulate economic opportunities such as by providing valuable open space which may increase land values and, therefore, the tax base.
- Provide some federal tax incentives to landowners (depending on a landowner's financial situation) willing and able to place some of their lands under conservation easement.
- Reduce grounds maintenance.
- Provide recreational opportunities, and associated economic benefits for recreation-related businesses.
- Provide educational and research opportunities for local schools and colleges.
- Provide windbreak, shade and visual buffer.

Natural Resources Actions:

- A. Update zoning ordinances as necessary, and consider adopting official maps to reflect the resource protection Goal and Objectives of this Plan and to be consistent with the Future Land Use Map (Figure 7.1). The resource protection provisions of municipal zoning ordinances vary, and the approach taken by each Township will vary. Options include:
 - 1. Adopt Natural Resource Protection Standards and/or Net-Out Provisions for the following resources:
 - a. Floodplains
 - b. Wetlands
 - c. Wetland Margins (buffers)
 - d. Watercourses
 - e. Water bodies
 - f. Greater than 25% slope
 - g. 15-25% slope
 - 2. Adopt Steep Slope Protection Provisions:
 - a. Control and limit development on steep slopes

- Require larger lot sizes and impose stricter impervious restrictions for steep slopes of 15 to 25%
- Prohibit or severely restrict development on slopes greater than 25%
- 3. Adopt Groundwater Protection Provisions:
 - a. Protect aquifers through design standards, construction guidelines, use restrictions, impervious limits, and permit submission requirements.
- 4. Adopt Tree and Woodland Protection, Management and Planting Provisions:
 - a. Limit clearance for development in both subdivisions and land developments.
 - b. Require tree protection and replacement during development.
 - c. Encourage the use of native species in landscaping. Discourage invasive species.
 - d. Establish limited clearance buffer zones around the perimeter of new developments
- 5. Adopt provisions for Wetland, Wetland Buffer, and Hydric Soil Protection:
 - a. Restrict development in wetlands.
 - b. Establish consistent wetland, wet area, and water body buffer (margin) requirements, such as 50 feet or 100 feet.
 - c. Require wetland delineation in hydric soil areas.
- 6. Adopt Floodplain Protection Provisions:
 - a. Severely restrict development in floodplains to compatible open space uses.
- 7. Establish Stream Corridor Overlay Zoning and require Riparian Buffers:

- a. Restrict development and impervious surfaces.
- b. Require riparian (vegetative) buffers to moderate water temperatures, protect wildlife habitats, control sedimentation, and reduce pollution.
- c. Require greenways.
- d. Utilize the Best Management Practices where practical, and implement the Tulpehocken Creek and Schuylkill River Watersheds Act 167 Stormwater Management Plans.
- e. Protect the Region's streams.
- 8. Adopt Outdoor Lighting Standards to control light pollution and protect the night sky:
 - a. Establish illumination levels that are adequate but not excessive.
 - b. Require impacts on surrounding streets and properties to be mitigated by directing light down, not up or out to sides of fixtures.
 - c. Control glare.
- 9. Adopt Forestry Regulations:
 - a. Require accepted silvicultural (forestry) practices.
 - b. Require a forestry management plan.
 - c. Require stormwater and erosion and sedimentation control.
 - d. Require properly constructed internal logging roads and protection of public roads.
 - e. Require soil erosion protection during steep slope forestry.
- B. Update subdivision and land development ordinances as necessary. Options include the following:
 - 1. Expand plan data requirements to include a specific listing of environmental, scenic, historic, and cultural resources.

- 2. Require developers to identify the resources within their tracts, analyze the impacts of the development, and mitigate those impacts.
- 3. Require environmental assessment studies; hydrogeologic studies; scenic, historic and cultural resources impact studies; plans for preservation of environmental, historic, and cultural resources; and analysis of the site's ability to support the proposed use and intensity.
- 4. Require developers to identify natural, historic, scenic, architectural and cultural resources in their tracts and incorporate them into the open space system. Require management plans for open space as well as mechanisms to ensure the continuation as open space.

In review of Subdivision and Land Development Plans, requirements for setting aside open space can be used to preserve conservation corridors and provide for greenways.

Requirements for setting aside open space can also be used to protect targeted undeveloped areas and identified natural areas pursuant to municipal plans.

- 5. Establish development guidelines for development in groundwater recharge areas, including limits on impervious cover and limits on on-site sewage disposal.
- 6. Require protection of vegetation during site work.
- 7. Limit clearance on approved, but not developed, lots. Potential techniques include tree clearance ordinances, deed restrictions, net-out provisions, and identification of permissible clearance areas during the development process.
- C. Create municipal Environmental Advisory Councils to work with municipal officials to preserve key tracts of open space, protect environmental resources in the Region, and implement open space and recreation plans.

Act 148 of 1973 authorizes any municipality or group of municipalities to establish, by ordinance, an Environmental Advisory Council to advise the local planning commissions, park and recreation boards, and elected officials on matters dealing with the protection, conservation, management, promotion, and use of natural resources located in the municipality's territorial limits.

Act 148 empowers Environmental Advisory Councils to:

- Identify environmental problems and recommend plans and programs to the appropriate municipal agencies for the promotion and conservation of natural resources and for the protection and improvement of the quality of the environment within its municipal boundaries;
- Keep an index of all open space, publicly and privately owned, including flood-prone areas, and other unique natural areas, for the purpose of obtaining information on the proper use of such areas;
- Advise the appropriate local government agencies, including, but not limited to, the planning commission and park and recreation board or, if none, the elected governing body, on the acquisition of property, both real and personal.
- D. Encourage formation of groups within the community to adopt a stream and provide monitoring and oversight along the stream corridor.
- E. Pursue joint watershed planning opportunities under the Growing Greener initiative and other programs in order to protect community water resources.

Energy Conservation

The Penn, Jefferson, Bernville Region is growing, and with this growth comes the increased reliance on energy sources. Energy conservation is becoming a high priority because the way we use our resources today will have a profound effect on future generations. Land use plans, land development regulations, building codes, and transportation policies should be implemented to support the policy of energy conservation.

As the environmental impact of buildings becomes more apparent, a new field called *green building* is arising to reduce that impact at the source. *Green* or *sustainable building* is the practice of creating healthier and more resource-efficient models of construction, renovation, operation, maintenance, and demolition.

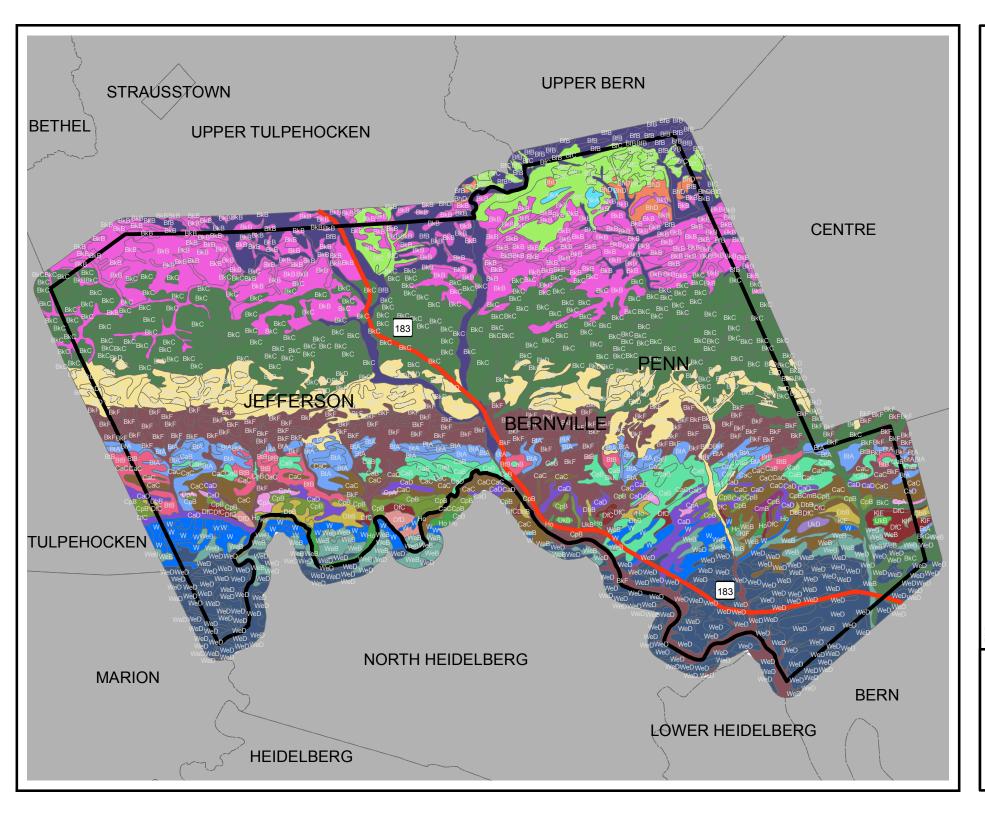
Goal: Conserve energy through appropriate land use and transportation planning techniques and public education efforts.

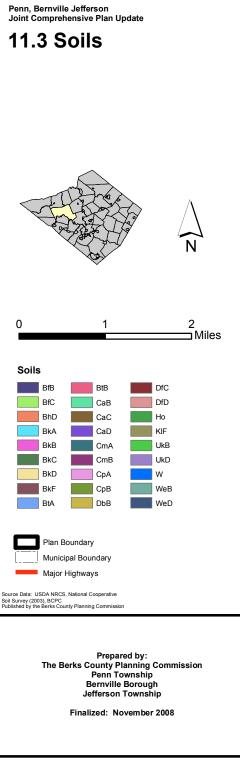
Objectives:

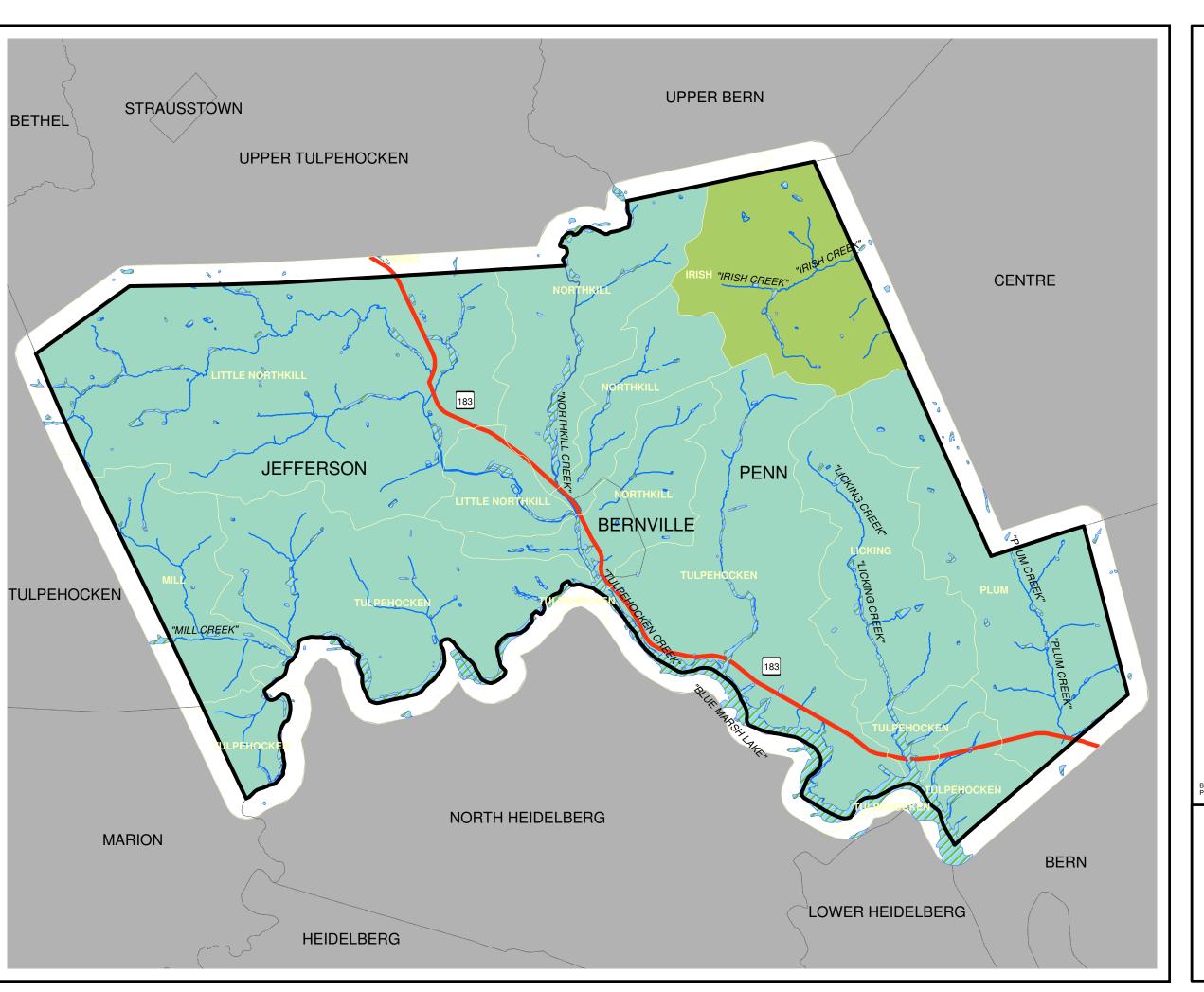
- Promote alternatives to motor vehicle use to improve air quality and conserve fossil fuels.
- Maximize recycling as the markets become available.
- Promote mixed-use development patterns and densities that result in more compact communities, encourage fewer and shorter vehicle trips, and limit the need to extend infrastructure.

Actions:

- 1. Educate residents and businesses regarding the benefits of energy conservation.
- 2. Review and update ordinances to include regulations for energy efficient building and design techniques. Encourage the use of renewable sources of energy, including solar, wind, and biomass (energy from organic matter).







Penn, Bernville, Jefferson Joint Comprehensive Plan Update 11.4 Watershed Bounds and Wetlands 2 Miles Legend Schuylkill Watershed Tulpehocken Watershed Watersheds Wetlands Plan Boundary Municipal Boundary Major Highways - Streams Base Data: Berks County Planning Commission Published by the Berks County Planning Commission Prepared by: The Berks County Planning Commission Penn Township Bernville Borough Jefferson Township Finalized: November 2008

Chapter 12

Historic and Cultural Resources Plan

Presence of the Past

• Local history helps explain why communities look and function the way they do today. Bernville's role as an important commercial village along the Union Canal was the strongest influence on the Penn-Jefferson-Bernville area's formative growth and development.

The Borough of Bernville and Jefferson Township share a long and interesting history. The earliest known inhabitants were the Delaware Indians who moved to the Region after selling their eastern lands. The Delaware were a docile tribe whose ancient symbol was the turtle. The Delaware named the area "Tulpehocken" meaning Land of the Turtles to help stake their claim to the land. However, European land speculators began visiting the area as early as 1718.

In 1722, Laetitia Penn (daughter of William Penn) sold off the rights to 10,000 acres in the area. The Delawares protested and sought protection from a new wave of settlers. However, the tribe was unable to receive assurances from the colonial government and most moved westward by the end of 1724.

German Palatine immigrants were among the first permanent settlers in the area. This group originally settled along the Hudson River in New York and later resettled in the Tulpehocken valley. Known as the Tulpehocken Settlement, they arrived in three successful waves beginning with 15 families in 1723 and followed by an additional 18 families in 1725. A third group arrived in 1729.

The years 1755 to 1758 brought Indian raids to the frontier lands of the colonies, including the Tulpehocken valley. Two massacre sites are located within Jefferson Township.

As early as 1690, William Penn had the idea of a grand canal to connect the people of his lands with its resources and goods. In 1791, work on the Union Canal was initiated to connect the Schuylkill River and Schuylkill Canal with the Susquehanna River. Work continued until the canal was completed in 1828. The canal proved to be a strong boost to the area's industrial and commercial growth. Bernville had become a thriving community by 1852 and was even considered for the County Seat. Railroads led to the demise of the Canal during the 1850's and the Canal ceased operations in 1884. Today the Tulpehocken Creek Historic District protects the canal and other historic architecture along the canal.

Both Bernville and Jefferson Township were originally part of Tulpehocken Township. Stephanus Umbenhauer founded Bernville in 1819 and named it after Bern, Switzerland. Bernville and Jefferson Township were each incorporated separately in 1851. Joseph Conrad, a local mill owner and Bernville resident, served in the state legislature during the 1870's. His 1840's circa home can still be found along Main Street in the Borough.

Penn Township was first settled by German farmers in the late 1700s. It was originally part of Bern Township, then Upper Bern Township. The village of Mt. Pleasant was first settled in 1812 and consisted of residences, several factories, an inn and a tavern. In 1828, the Union Canal was completed, connecting the Susquehanna and Schuylkill Rivers. The Bernville Locks became one of the main ports along the Canal, and a community developed around this port.

In 1838, residents of the area petitioned the Berks County Court of Quarter Sessions to create a new township from parts of Bern, Heidelberg, Upper Bern, and Upper Tulpehocken Townships. These existing townships were seen as too large to be conveniently accessible to residents of this area or to be effective in keeping roads in good repair. In May of that year, the Court rejected the petition, but in November 1840, the Court approved a second petition, thus erecting a new township from parts of Bern and Upper Bern Township and including an area that is now Penn Township and Bernville Borough.

The recommended name for the new Township was "Northkill", but the Court suggested "Penn", in honor of the founder of Pennsylvania, and on November 5, 1841, Penn Township was created. In 1851, the village of Bernville, discontented with the Township's inability to properly maintain roads and provide adequate community services, was incorporated as a borough. The village of Mt. Pleasant then became Penn Township's largest settlement. The Township continued to prosper because of the Canal until after the Civil War. Railroads began to replace waterways as the primary means of transporting goods, and in 1884, the Canal ceased operation. As the result of the abandonment of the Canal and railroads bypassing the Township, Penn Township's economy faltered, with factories closing and its population decreasing. This decline lasted into the early 1900s.

With the introduction of the automobile, Penn Township experienced a new vitality, and by 1930, the automobile was the major influence in the Township's growth and development. The Township was the location of hundreds of summer bungalows, with a large colony of them situated along the Tulpehocken Creek between Mt. Pleasant and Bernville. The Mt. Pleasant Fire Company was formed in 1921, with a charter granted in 1924. In 1931, the Penn-Bernville Consolidated School was dedicated. The post-war boom and migration from urban areas in the 1950s brought additional persons into the Township. Between 1960 and 1980, Penn Township experienced a dramatic change in its land use composition. The projects which were directly responsible for this change

were the development of the Blue Marsh Project and the expansion of the Pennsylvania State Game Lands. Approximately 3,220 acres or 26.1 percent of the land area within Penn Township is consumed by the Blue Marsh Project and Pennsylvania State Game Lands.

The development and construction of the Blue Marsh Project was authorized as part of the Flood Control Act of 1962 (Public Law 87-874). Blue Marsh Lake is located along the Tulpehocken Creek in the Delaware River Basin, six (6) miles northwest of the City of Reading. A significant portion of the Blue Marsh Project is located within the southern part of Penn Township. Construction of the Blue Marsh Dam and Reservoir commenced in March of 1974 and concluded in September of 1979. The Blue Marsh Project was designed as a multi-purpose project for flood control, water supply, low flow augmentation, recreation and water quality control. The reservoir is designed to contain up to 11 billion gallons of flood water above the normal winter pool, providing flood protection for events up to and including the 100-year flood. Approximately 540 acres or 4.4 percent of the land area within Penn Township is consumed by the Blue Marsh Project.

Through the development of the Blue Marsh Project, the Pennsylvania State Game Lands were expanded to serve as a natural and physical buffer to the Blue Marsh Lake. The Pennsylvania State Game Lands were expanded in Penn Township through separate acts of either acquisition or condemnation by the Commonwealth of Pennsylvania. Approximately 2,280 acres or 21.7 percent of the land area within Penn Township is consumed by the Pennsylvania State Game Lands.

Between 1980 and 1990, Penn Township had the greatest percentage increase in population among all municipalities within Berks County. This growth rate was the result of a number of factors, including a desirable location, improvements to the transportation network, development pressures, the availability of reasonably priced land, and the expansion of public utilities.

Table 12.1: Historic Sites Borough of Bernville

Map ID	Feature Name		
1	Filberts Tavern & Union House		
2	Arthur Harms Property		
3	Barr Property		
4	Mildred Balthaser Property		
5	Edith Kirkhoff Property		
6	Alan Speicher Property		
7	Marvin Luckenbill Property		
8	Stanley Klopp Property		
9	Frank Speaker Property		
10	Stanley Klopp Property		
11	Stanley Klopp Property		
12	Walter Krause Property		
13	Lester Lesher Property		
14	Paul Sheetz Property		
15	Walter Berger Property		
16	Clarence Reber Property		
17	Brights Store		
18	Margaret Burkey Property		
19	Lutheran Parsonage		
20	St Thomas Church		
21	Umbenhauer Homestead		
22	Bernville Borough		
23	Penn Township School		
24	Runkle Inn		
25	White Horse Hotel		
26	Joseph B. Conrad Home		
27	Frieden's Church		
28	Burkhart Tin Smith Shop		
29	1st National Bank		
30	Shock's Store		
31	Blatt's Photo Gallery		
32	Bernville Bakery		
33	Northkill Church and Cemetery		
34	American House Hotel		
35	Bennethum Tannery hide house		
36	Mennonite Church		
37	First Fire Hall		
38	Umbenhauer Park Sign		
39	Greering Home		
Cource: Barks County Planning Department			

Source: Berks County Planning Department

Table 12.2: Historic Sites Penn and Jefferson Townships

MAP ID	Feature Name	MAP ID	Feature Name	
1	N/A - log structure	45	N/A - brick structure	
2	Tannery Monument	46	New Schaefferstown	
3	Adam Potteiger Homestead	47	New schaefferstown School	
4	Batdorf Farm	48	Peter Fox Homestead	
5	Beaver Tree Farm	49	Potteiger Farm	
6	Christ Church Farmhouse	50	Samuel Miller Farm	
7	Christ Little Tulpehocken Church	51	Schaeffer Homestead	
8	Christmas Village	52	Scharff Farm	
9	Cross Keys Inn	53	St Paul's Evangelical Lutheran	
10	Daniel Wagner Homestead	54	Staley Property	
11	Derr House	55	Stupp Homestead	
12	Derr House	56	Tulpehocken Hotel	
13	Ditzler Homestead	57	Tulpehocken Lodge Hall	
14	Dundore	58	Union Canal Lock 29	
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17	Groff House	61	Union Canal Lock 32	
18	Groff Road School House	62	Union Canal Lock 33	
19	Gruber Homestead	63	Union Canal Lock 34	
20	Haag Gristmill	64	Union Canal Lock 35	
21	Harry Derr House Property	65	Union Canal Lockhouse	
22	Henne School	66	Wagners's School "Lash"	
23	Hilltop or Weaver's School	67	Wilhelm Homestead	
24	Holtzman Property	68	William Reed Homestead	
25	J.A. Wagner House	69	Yeakley-Schaeffer-Strause	
26	Jacob Gerhart Mill	70	Yost Mill	
27	Jeremiah Weaver Farm	71	Yost School	
28	John Nicholas & Elizabeth Moyer	72	Zerbe Property	
29	Joseph Derr Farm	73	Bright Homestead	
30	Kissling Farm	74	Bright School	
31	Klee Tilt-hammer	75	David Bond House	
32	Klein Family Cemetery	76	Davis School	
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Source: Berks County Planning Department

HISTORIC AND CULTURAL RESOURCES PLAN

The Region's history is reflected in its architecture, people, and character. Historic resources connect us to the past, emphasize our sense of community, and often provide aesthetic value. In addition, historic resources can provide tourism benefits which often lead to economic development opportunities. Planning for the protection of historic resources is especially important because historical resources are not renewable.

Many of the buildings found along the Region's highways, country roads, and village streets are examples of vernacular architecture. Although they may feature some of the elements commonly found in a particular style, mainly Germanic, vernacular architecture incorporates an individual builder's ideas into an overall design. The mixture of the vernacular and German examples enhances the overall character of the Region.

Historic Districts

Local historic districts are areas in which historic buildings and their settings are protected by public review. Historic district ordinances are local laws adopted by communities using powers granted by the state. Historic districts consist of the Region's significant historic and architectural resources. Inclusion in a historic district signifies that a property contributes to a group of structures that is worth protecting because of its historic importance or architectural quality.

Potential areas where official 'Historic District' status can be pursued in the Region include the following:

- Main Street in Bernville;
- Portions of the Village of New Schaefferstown

National Register of Historic Places

The National Register of Historic Places is the nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering and culture.

Currently, there is only one site in the Region that is listed on the National Register – the John Nicolas and Elizabeth Moyer House, located in Jefferson Township. There are many other historic sites (see Tables 12.1 & 12.2) that while not on the National Register, are significant on a local scale, and add to the distinct character and cultural heritage of the Region.

Cultural Resources

Cultural resources are the special characteristics that make a community unique. A community that takes pride in and respects its traditions is typically a community with a well-defined character. The Region contains a rich, diverse heritage with significant cultural resources that should be embraced and preserved. Much of the rich culture in the Region is derived from the influences of the early German settlers who arrived in the Townships in the mid 1700s. Many examples of the architecture and customs of these people still remain, reflected in the historic farmhouses, churches, grist mills, and canal locks that enhance the Region's heritage.

Historic, Architectural and Cultural Resources

Goal: Protect, preserve, and enhance the remaining historic, architectural, and cultural resources and their surroundings.

Objectives:

- Discourage inappropriate development in historic areas of the Region, require impact studies for development near historic resources, and require mitigation of any potential adverse impacts on historic resources.
- Maintain and initiate partnerships with the Berks County Conservancy and other organizations to protect the Region's built treasures.
- Provide for adaptive re-use of historic structures where appropriate.
- Encourage the identification, marking, and interpretation of historic resources in the Region, and foster increased public awareness of the history of the Region.
- Determine the role which the municipalities should play in historic preservation through land use ordinance incentives and regulations and efforts to create historic overlay zoning.
- Require new development to consider the history, architecture and development patterns of the municipalities in order to preserve the important historic and architectural resources of the Region.
- Discourage demolition by neglect and deterioration of historic resources.

- Identify existing contemporary sites which could be considered part of the historical or cultural heritage of future generations and work to preserve these sites for future generations.
- Support cultural events which celebrate the historic and cultural heritage of the Region.
- Consider historic overlay zoning which provides special protection for historic sites including farm houses, barns, mills, old schoolhouses, and churches.
- Maintain the regional survey of historic resources contained within the *Berks County Greenway, Park and Recreation Plan.*.

Historic and Cultural Resource Actions:

- A. Update zoning ordinances as necessary to protect historic resources and community character. Options include:
 - 1. Adopt Historic Resource Overlay Zoning. Concentrate on the Historic Overlay District, as depicted on the Future Land Use Map.
 - a. Create historical commissions and / or committees where they do not exist or a joint historical commission
 - b. Identify historic resources
 - c. Require developers to analyze:
 - Nature of historic resources on and near property
 - Impact of proposals on historic resources, and
 - Mitigation measures
 - d. Encourage adaptive reuse of historic buildings
 - e. Establish use, coverage, density, intensity, and yard bonuses for architectural treatments, building design, amenities, and open spaces/buffers compatible with existing resources, appropriate reuse of existing resources and donation of façade easements
 - f. Encourage architecture, materials, and development patterns characteristic to the area

- 2. Adopt Demolition by Neglect Provisions:
 - a. Require property owners to protect and maintain historic properties to avoid demolition by vandalism or the elements by requiring unoccupied structures to be sealed or secured by fencing
- 3. Identify provisions to protect the character of villages, and have streets, buildings, and public spaces integrated to create a sense of place with pedestrian scale. Consideration can be given to adopting the following as standards or promoting them through incentives:
 - a. Allow only appropriate uses in scale with, and compatible with, existing appropriate uses, discouraging uses that would transform the character of the areas.
 - b. Establish coverage, density, intensity, and yard bonuses for architectural treatments, building design, amenities, street furniture, open spaces, and parking designs consistent with the character of the area.
 - c. Require pedestrian amenities as necessary improvements to be made by land developers.
 - d. Construct parking areas to the rear and side of buildings and establish standards for design, buffering, and landscaping of new parking facilities.
 - e. Require signage appropriate to the area.
 - f. Establish appropriate standards for driveway design and access to streets to provide for appropriate access management.
 - g. Minimize use of drive-through facilities.
 - h. Encourage new development to be compatible with, and integrated into, existing streetscapes when appropriate, with consideration of:
 - Appropriate siting patterns, such as setbacks of buildings on lots
 - Materials of similar appearance and texture to those on existing buildings

- Similar architectural details as other buildings in the neighborhood
- The scale and proportion of buildings near new structures. Scale deals with the relationship of each building to other buildings in the area; and, proportion deals with the relationship of the height to the width of a building and with the relationship of each part to the whole
- Similar roof shapes
- Similar footprints of buildings and rooflines (matching façade masses with existing buildings)
- Similar building heights
- 4. Regulate conversions of buildings, addressing:
 - Locations where permitted
 - The procedural treatment of the use
 - The type of building that can be converted
 - Density of converted units
 - Lot size for converted building
 - Impervious surface/open space requirements
 - Units allowed per structure
 - Structure size requirements
 - Minimum size of dwelling units
 - Neighborhood compatibility standards
 - Adequate parking requirements
 - Screening of parking and common areas
 - Limits on the structural revisions for buildings
- B. Appoint a regional or municipal historical commission or committee if none exist, which is actively involved in historic preservation. The commission would be instrumental in administration of any historic resource overlay zoning that is adopted. The commission would also continue to:
 - 1. Identify, evaluate, mark and foster awareness of historic resources
 - 2. Investigate participation in Certified Local Government Program
 - 3. Encourage retention, restoration, enhancement and appropriate adaptive reuse of historic resources and discourage removal of historic structures

- 4. Develop programs, events and interpretive signage and exhibits that emphasize the history of the Region
- 5. Evaluate the potential for historic districts and support their creation if warranted. If created, support the adoption of voluntary or mandatory Design Guidelines and Sign Controls for the Historic District.
- C. Support the activities of individuals and groups that identify, document, evaluate, and protect historical resources and increase public awareness of the area's history and historic resources.

HISTORIC PRESERVATION AT THE STATE AND LOCAL LEVEL

Establishing a local Historic District requires an assessment of the present status of the community's historic resources, knowledge of past historic preservation efforts, and a list of goals and objectives. Taking such an assessment enables the designating community to take advantage of historic preservation incentives available at the national, state, and local governmental levels, such as grants, income tax credits for historic rehabilitation, lowinterest loans, and local tax abatements. A requirement of establishing a local district, provided it was created pursuant to Act 167, the Historic District Act, is the establishment of a Historic Architectural Review Board (HARB). The HARB reviews all proposed erection, reconstruction, alteration, restoration, or demolition of buildings within the district before the issuance of any municipal permits pursuant to these actions. HARB reviews and recommendations must be consistent with the design guidelines established at the enactment of the Historic District. The Township Supervisors or Borough Council have the right to incorporate any of the HARB's recommendations into the permit requirements, but they may also override those recommendations. Municipalities whose districts are not created under Act 167 are not required to have a HARB, but instead may appoint a Historic District Commission or Committee.

The Region contains two potential Historic Districts, Main Street in Bernville, and portions of the New Schaefferstown Village.

Two Pennsylvania laws provide the legal foundation for municipalities to adopt historic ordinances and regulatory measures.

Act 247 – The Pennsylvania Municipalities Planning Code (MPC)

Acts 67 and 68 of 2001 amended the MPC, strengthening the ability of local governments to protect historic resources through their Comprehensive Plans, Zoning Ordinances and

Subdivision and Land Development Ordinances. The following passages and paraphrases from the MPC are the most critical sections regarding this power.

- §603(C)(7) Zoning ordinances may promote and preserve prime agricultural land, environmentally sensitive areas, and areas of historic significance.
- §603(G)(2) Zoning ordinances are required to protect natural and historic resources.
- §702(1)(ii) The governing body of each municipality may enact, amend and repeal provisions of a zoning ordinance in order to fix standards and conditions for traditional neighborhood development. In the case of either an outgrowth or extension of existing development or urban infill, a traditional neighborhood development designation may be either in the form of an overlay zone, or as an outright designation, whichever the municipality decides. Outgrowths or extensions of existing development may include development of a contiguous municipality.
- §1106(a)(6) Multi-municipal Comprehensive Plans shall consider the conservation and enhancement of natural, scenic, historic, and aesthetic resources in their municipalities.

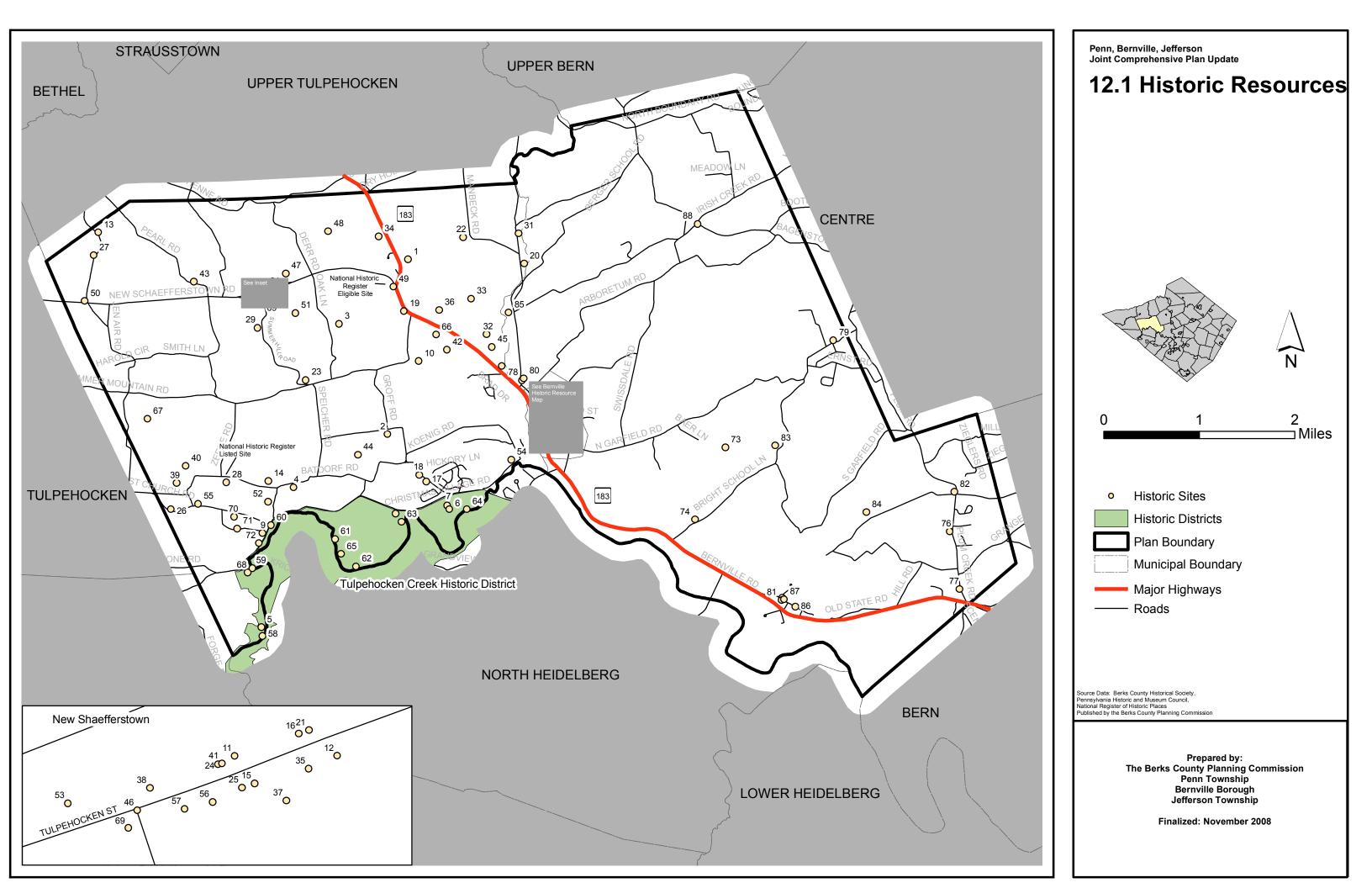
A Historic Overlay Zoning District, unlike the protection offered through the establishment of an Act 167 Historic District (discussed below), can include individual sites as well as clusters, as long as the resources are documented and identified on a historic resources map. A historic overlay district could require new buildings to be similar in type and scale to those already existing. Setbacks should be consistent with the common building setback. Requirements to replicate the existing building line, building height, and bulk could help to preserve the character of the neighborhood.

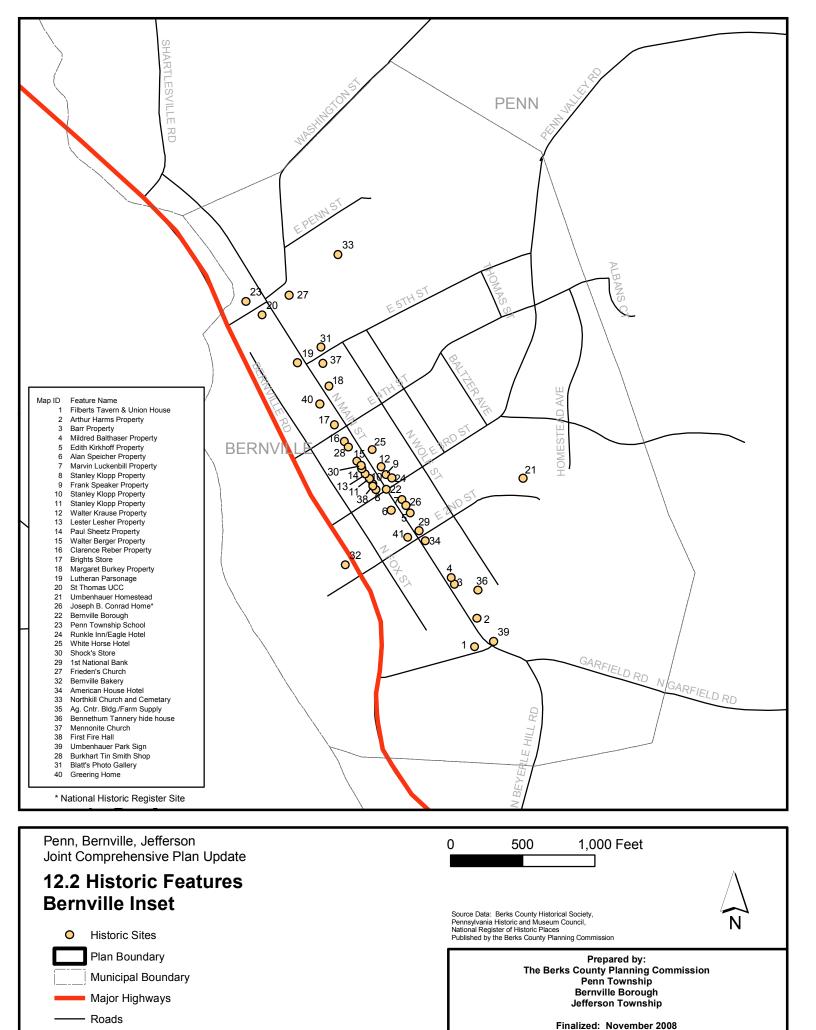
Act 167 - The Historic District Act (1961)

Municipalities may create historic districts within their borders to protect the historic character through regulation of the erection, reconstruction, alteration, restoration, demolition, or razing of buildings in the district. The Pennsylvania Historical and Museum Commission must certify districts, including a *determination of eligibility* for the National Register of Historic Places. In this way, historic districts established pursuant to Act 167 have the same protection from federal projects as do National Register properties. Act 167 also requires appointment of a HARB.

Penn and Jefferson Historic Resources map key

Map ID	Historic Resource	Map ID	Historic Resource
1	log structure	45	brick structure
2	Tannery Monument	46	New Schaefferstown
3	Adam Potteiger Homestead	47	New Schaefferstown School
4	Batdorf Farm	48	Peter Fox Homestead
5	Beaver Tree Farm	49	Potteiger Farm
6	Christ Church Farmhouse	50	Samuel Miller Farm
7	Christ Little Tulpehocken Church	51	Schaeffer Homestead
8	Christmas Village	52	Scharff Farm
9	Cross Keys Inn	53	St Paul's Evangelical Lutheran
10	Daniel Wagner Homestead	54	Staley Property
11	Derr House	55	Stupp Homestead
12	Derr House	56	Tulpehocken Hotel
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Chapter 13 Interrelationships of Plan Components

INTRODUCTION

The Municipalities Planning Code specifies that comprehensive plans include a discussion of the interrelationships among the various plan components. This requirement is intended to ensure that plan components are integrated and for the most part, not in conflict with the primary goals and objectives. Furthermore, this section requires the Plan to consider the impacts each component has upon the others so the potential consequences of future decisions are known. During the production of this Plan, the Steering Committee formulated and approved general goals, gathering information from prior planning documents, public input, and Berks County Planning Commission staff recommendations. More detailed objectives were derived from these goals and serve as the framework for the entire plan.

The following text and Interrelationship Chart give a brief description of how each of the individual plan elements relate to one another.

RELATIONSHIP OF PLAN COMPONENTS

The Future Land Use Plan allocates general land uses and specifies the recommended types of land uses and densities for those uses. The availability of sanitary sewer and water facilities influence the shaping of development patterns, including location and density. It is critical to coordinate land use and infrastructure planning so future land use reflects the availability of public sewer and water facilities and public sewer and water facilities are not proposed for those areas not intended for future development.

Through land use planning, such as designation of the Agricultural Preservation and Public / Recreation and Open Space areas, recharge areas for community water supplies can be established. Intensive residential development is not proposed where sewer infrastructure is not planned, available, or in close proximity, and where soils are not suitable for on-site sewage disposal.

It is important that community facilities, including recreation and open space, are available to serve the residents of the area. The Community Facilities Plan notes existing recreational facilities and potential opportunities for recreational facilities. The Plan discusses a potential greenway system for recreational purposes and to better link residential areas to community facilities. Future public facilities should be sited to be consistent with the objectives of the Future Land Use Plan, such as maintaining open space and recreation uses.

The Future Land Use Plan encourages economic vitality by providing areas for commercial and industrial development and agricultural activities. Preservation of residential neighborhoods can provide support for local businesses and provide a work force. Providing for open space and preservation of community resources supports the quality of life in the area and can encourage additional investment.

It is necessary to maintain a circulation system, which can accommodate generated traffic volumes. In turn, future development should not adversely affect the circulation system. Land use decisions are influenced by the existing circulation system, while at the same time those land use decisions affect circulation systems and the functions which roads are expected to perform. Existing rural and residential areas should be protected as much as possible from the impacts of through traffic, which can be accomplished by proposed improvements to the circulation network. Efforts to link the various modes of transportation, such as pedestrian trails, transportation system improvements, and multimodal facilities should be explored and encouraged.

Interrelationships of Plan Components

Plan Element	Land Use and Housing	Sewer and Water	Community Facilities	Transportation	Natural Environment	Economic Development
Land Use and Housing	 Support existing villages Provide a variety of housing opportunities for all Target Growth Areas 	Policies coordinated with land use goals to direct development to growth areas	Make available to serve area residents where necessary	 Must consider impacts of growth on the system Accommodate volumes at acceptable levels of service Access management on priority corridors 	 Provide open space system through their protection Agricultural preservation strategies 	 Impacts on residential areas should be mitigated Provide jobs and services for residents
Sewer and Water	 Growth should occur where have adequate facilities 	 Consider existing facilities and plans, appropriate discharge standards and methods 	Locate with consideration of ability to serve, consistent with land use goals	Should be coordinated in support of growth areas	Water Supply sources should be protected and pollution prevented	Should not overburden systems or deplete water supplies
Community Facilities	 Include facilities to service residents and growth areas 	 Major facilities should be adequately served 	Consider existing 537 plans, potential cooperative efforts	 Should adequately service facilities in the Region Consider linkages of community facilities 	 Can provide recreational opportunities Green Infrastructure 	Can provide a tax base to support provision of facilities
Transportation	 Growth should occur where have adequate capacity Maintain functional operation and safety when growth occurs 	 Should be coordinated in support of growth areas 	 Locate major facilities where can be adequately serviced Concerns for school transportation system Consider impacts on system from growth 	 Consider existing facilities and plans, coordinate with County and PennDOT Plan improvements to the system. 	 Can provide scenic roads and vistas Provide non-motorized and public transportation alternatives 	 Develop Greenway system Access management on PA Route 183
Natural Environment	 Development should occur where land is suitable and resources will not be harmed 	 Should not extend to areas where irreparably harm important resources 	Can incorporate natural features	 Can facilitate access to resources Design system with consideration of existing environment and resources 	 Existing natural resources should be protected, enhanced and interpreted Blue Marsh Lake lands 	 Protect the natural environment Tourism / promote heritage of the Region
Economic Development	 Identify appropriate land uses for sensitive areas Provide for commercial, industrial, business uses Neighborhoods provide workforce and market 	 Can support development at appropriate locations 	 Contribute to quality of life and the attractiveness of the area Implement a greenway system 	 Address system deficiencies to improve business climate Improve intersections and access to industrial parks. 	Contribute to quality of life and attractiveness of area to businesses	 Support existing business centers Concentrate on developing industrial parks









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