

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 |
| Jr.-Senior 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 District | 2000-01 | 2001-02 | % Increase | 2002-03 | % Increase | 2003-04 | % Increase | 2004-05 | % Increase | 2005-2006 | % Increase | 2006-2007 | % 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

| | | |
|------------------------------------|-----|--|
| Bernville Fire Company | #29 | Serves Bernville, Jefferson, Penn and 1/3 of North Heidelberg |
| Mt. Pleasant Fire Company | #30 | Serves Penn Township and acts as backup to the Region |
| Strausstown Volunteer Fire Company | #50 | Serves parts of Jefferson Township and provides backup support |
| Shartlesville Fire Company | #41 | Provides backup support and aid to the Region depending on call and area |
| Rehlersburg Volunteer Fire Company | #27 | Provides backup support and services 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 to the National Park and Recreation Association (NPRA). NPRA 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 Swimming Association | Municipal owned – administered by group | 1.44 | Swimming |
| 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 Club | Private | 144.88 | Golf, Hiking, Horseback Riding, Ice hockey, Swimming, Tennis |
| 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 Wilderness Association | Private | 34.22 | Nature Study |
| Penn | Gamelands 280 | State | 1859.73 | Hiking, Hunting, Nature Study |
| Penn | Northkill Rod & Gun Club | Private | 36.95 | Hunting |
| 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) <small>Source: US Census Bureau</small> | 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 Region-wide 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.
2. 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 |
|---|---|---|---|
| <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • Encourage development where public sewer and water exist; discourage on-site 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 | <ul style="list-style-type: none"> • Regulation/restriction of potential contaminating uses and substances • Performance standards • Design standards • Operating requirements • Review process • Wellhead protection ordinance | <ul style="list-style-type: none"> • 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.