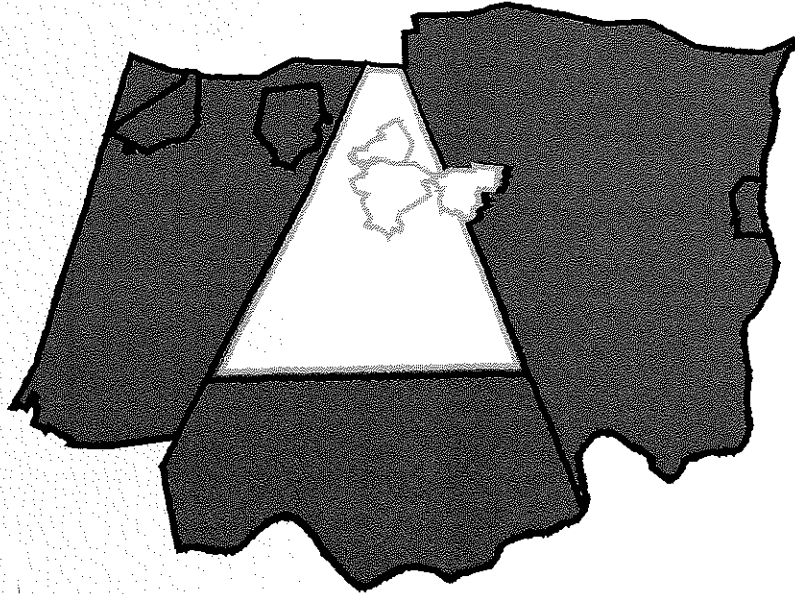


Regional Comprehensive Plan

Central Slate Belt Region



COMPREHENSIVE PLAN 2005 - 2030 TOWNSHIP OF WASHINGTON PENNSYLVANIA

Boroughs of Bangor, Roseto,
East Bangor, Township of Washington
in County of Northampton, Pennsylvania

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**WASHINGTON TOWNSHIP PLANNING COMMISSION
Central Slate Belt Regional Plan Steering Committee**

Rodite & Pandl, LLC, Community Planners

Adopted by Washington Township Supervisors December 2005

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The Boroughs of Bangor, Roseto, East Bangor and the Township of Washington make up the Central Slate Belt Region. The municipal governing bodies of this region agreed to create a long range comprehensive plan as part of an inter-governmental cooperation agreement. For convenience in this report the four municipalities are referred to as the BREW municipalities or communities.

Why plan together? There are several reasons for multi-municipal planning. For the BREW municipalities, economics is one of the prime reasons. The Northern tier of Northampton County has long been referred to as the Slate Belt Area. Five slate quarries opened between 1863 and 1870 in the Bangor Area. Slate mining and related industries were very important to the local economy until 1920s when the slate industry went into deep decline. More recently, agriculture, apparel manufacturing, retail trade, and service industries, particularly tax processing and computer related businesses provide most of the local job opportunities. However many local people commute long distances to work. The rural portions of the BREW planning area include productive agricultural soils and farming continues to be viable in the southern portion of the planning area. Regional planning will help the BREW municipalities to improve the Central Slate Belt Regional economy through a coordinated strategy to create local job opportunities. Secondly, this regional plan provides a better opportunity to preserve BREW environmental assets, farmland, and open space resources of this region.

There are also fiscal and legal advantages for this multi-municipal plan. There are cost savings in the planning stage and potential savings on shared services in the future. From the legal standpoint, the Pennsylvania Municipalities Planning Code enables a group of cooperating municipalities to provide for all required land uses over a larger geographic area for

a more rational distribution of land uses.

SELECTED CHARACTERISTICS

Bangor, Roseto, East Bangor and Washington Township are located in a low shale plateau with undulating hills located on the southerly side of the Blue Mountain. Martins Creek and several other streams have their head waters in this region. The BREW region generally has a scenic rural setting. The three historic boroughs and Township villages are semi-rural, central places, within the region. They also have local historic and architectural charm.

Beautiful Landscape – The beauty of this landscape is evident from the hills, valleys, streams, forests, farms, and village scale of the BREW communities. Special views of this landscape are enhanced from the higher land elevations. Land elevations above sea level reach their highest (1,600 feet on the Blue Mountain) and lowest points (340 feet along the Martins Creek) in Washington Township. Following are some other elevations:

Bangor – 760 feet at Bangor Memorial Park, 800 feet near 13th Street, 720 feet along Ridge Road, 520 feet at Broadway and Main Streets, 480 feet on Martins Creek near Pennico Park west of South Main Street.

Roseto – 840 feet along Kennedy Drive, 800 feet along Garibaldi Avenue and Eisenhower Boulevard, 760 feet at the Borough Park, 740 feet at the Municipal Building, 670 feet along Roseto Avenue, and 630 feet along Columbus Street as it exits the Borough to the east.

East Bangor – 800 feet along Maple Street near South Broad Street, 780 feet near North Broad, 700 feet at the Borough Park as well as at the intersection of Broad and Central Avenue, 620 feet at Capitol Auto Parts, and 580 feet along SR 512 at the western entrance of the Borough.

Washington Township Villages - 580 to 480 feet in Ackermanville, 440 to 400 feet in Factoryville, 480 to 420 feet in Flicksville, 700 to 660 feet in Jacktown, 800 to 680 feet in Locke Heights, 680 to 480 feet in Richmond, 940 to 840 feet in West Bangor.

HERITAGE

Indians were the earliest residents of this region. They were joined by European settlers in the early 18th century. In the 1730s, Scotch-Irish farmers came to this area. As more settlers arrived, mostly from Germany, village development took place primarily at the confluence of Martins Creek and Brushy Creek. When slate mining began in the mid to late 1860s, Welsh, English, German, Irish, Italian and others came to work in the mines and area businesses. The Slate Belt Heritage Center museum on North First Street in Bangor provides an opportunity to learn more about the history and economy of this area.

Although this is a regional plan, the plan seeks to respect and preserve each community's identity as part of the planning process.

PURPOSE OF THIS PLAN

The primary purpose of this plan is to recommend a set of coordinated policies to guide future growth, renewal of built-up areas and preservation of community – environmental assets in the four BREW municipalities. This plan also seeks to be consistent with the twelve purposes of a multi-municipal plan as defined in Section 1101 of the Pennsylvania Municipalities Planning Code. (See Chapter Three for copy)

SCOPE OF THIS PLANNING PROGRAM

This multi-municipal planning program includes three major tasks described below in the order of their accomplishment.

Investigation of Background Information-

Information including surveys, U.S. Census data, prior published reports and interviews form the basis for this plan. Some of that background information is summarized in Chapter Three of this report. Other data is in electronic files and preliminary draft report sections that were presented to the BREW municipal planning commissions as part of the multi-municipal planning program.

Preparation of Comprehensive Plan – The three major comprehensive plan elements are land use, transportation, and community facilities. The planning process involved preparing a Central Slate Belt Regional land use Plan, taking that plan to each individual community for their general agreement, having a Central Slate Belt Regional planning steering committee accept the plan and then detailing the transportation and community facilities elements.

Development of Plan Implementation

Recommendations – This planning process included the preparation of a recommended zoning ordinance for three of the four municipalities and a recommended zoning map for the fourth BREW community. This planning process also included a recommendation for the amendment of the multi-municipal intergovernmental agreement to include a process for the implementation of plan recommendations that are appropriate to carry out jointly by two or more of the BREW municipalities.

ORGANIZATION OF THIS REPORT

This report is organized in such a manner that it emphasizes the plan goals, policies, and implementation recommendations rather than the background information. The first chapter is the Regional Plan. This is followed by a local plan for each community. The background sections are in Chapter Three. This plan is consistent with the scope of the planning program established at the outset of this program to

meet the requirements of the PA Municipalities Planning Code and the PA Department of Community and Economic Development that administers the partial grant for this program.

ASSUMPTIONS

This Comprehensive Plan is based on the following general assumptions:

- It is important to consider human activities and the physical environment of the region as interacting. Balance is important.
- It is important to respect the existing human development in the Central Slate Belt Boroughs and Villages. These developments can be cultivated as decent, safe, and interesting central places for people to live, worship, recreate, work, and in which to conduct business.
- It is important to understand and respect the natural context and resources that link the communities, including the Blue Mountain watershed area, the three north-south trending creeks and their tributaries, the upland woodlands and the productive agricultural soils.
- It is important to understand that economic opportunities are extremely important to many residents of the BREW area particularly borough residents. Good economic opportunities provide local work and increased self respect. Improved economics for the family provides resources for living as well as home improvement, neighborhood stabilization, community enrichment and regional stability.

This Central Slate Belt Regional planning program is intended to be people oriented. The economy, land use, transportation, and community facility elements of the plan are inter-related to best serve the people of this region. Balance is

important. The old slate mining operations of the past were out of balance with nature leaving difficult reclamation issues for decades after the close of those mines. There was too much taking from nature and not enough care, respect and giving back. The landscape around the old mines tells the story. It is assumed that future policies of this Central Slate Belt Region should be more respectful of the land as a place for people to coexist with nature.

Population Trend Impact on Assumptions -

The number of people in the BREW area grew as a function of the prosperous mining and agricultural economies. By 1880, there were 1,328 people living in the village that became Bangor. Bangor's population grew up to the year 1950 when it peaked at 6,050 persons as the textile and apparel industries provided a new prosperous economic base to replace slate and limited agricultural growth. The number of people settling in the Boroughs of Roseto, East Bangor, and the villages in Washington Township also increased during this period, but they never grew to the size of Bangor. Bangor became the central place for many activities such as shopping, social activities, church and services. However, from 1950 to 1980 Bangor Borough's population declined to 5,006 as the textile and apparel industries began to move south and out of this country to lower labor costs and other lower costs.

Bangor's population increased slightly in the 1980's (+377), but declined by 64 in the 1990's. The number of people living in Washington Township increased by 554 in the 1980's and continued to increase in the 1990's by 393.

According to Lehigh Valley population forecasts, at some year between 2010 and 2020, the number of people living in Washington Township will exceed the number living in Bangor. Part of the reason for this change is that Bangor no longer provides major employment opportunities since textile manufacturing

is gone and apparel industries are a mere shadow of their employment importance within the Borough. Just south of the Borough, the largest regional apparel manufacturer is located in Washington Township. Another factor in Bangor's population decline is the aging population. As children graduated from school, they moved elsewhere to find work leaving only one or two parents in the large Bangor homestead. The number of persons per household in Bangor has been declining and is projected to continue to decline slightly for many more years. The number of buildable lots in Bangor is very limited. Conversely, Washington Township has almost all of the land for building homes in the BREW region. Washington Township also has a picturesque living environment. Some of the people moving into the Township are attracted to the Township for its environment and for its lower cost of land. Clearly from the local planning questionnaire results, (See Chapter Three of Township Plan) many New Jersey and New York families are moving into Washington Township for the more affordable cost of living, picturesque living environment and its safety. Many of the job holders in these new Township households either commute back to their former home areas or are commuting to the Lehigh Valley employment center. Some of the new residents appear to be working at home. This Central Slate Belt Regional Plan assumes that these trends will continue and intensify during the planning period to 2030.

Slate Belt and Central Slate Belt Population Growth Assumption – This Central Slate Belt Regional (BREW) Comprehensive Plan will utilize the population forecasted to the year 2030 by the Lehigh Valley Planning Commission (LVPC) as follows:

Slate Belt Area	2000	2030	Change
Central Slate Belt (BREW) Region			
Bangor B.	5,319	5,508	4%
Roseto B.	1,653	1,653	0%
East Bangor B.	979	1,103	13%
Washington T.	4,152	6,855	65%
BREW Region	12,103	15,120	25%

(Population Table Continued)			
Slate Belt Area	2000	2030	Change
Remainder of Slate Belt (non-BREW) Region			
<i>Lower Mount Bethel T.</i>	3,228	3,669	14%
<i>Upper Mount Bethel T.</i>	6,063	9,115	50%
<i>Plainfield T.</i>	5,668	9,002	59%
<i>Pen Argyl B.</i>	3,615	3,729	3%
<i>Portland B.</i>	579	747	29%
<i>Wind Gap B.</i>	2,812	2,812	0%
Non BREW	21,965	29,074	32%
Slate Belt Total	34,068	44,194	30%

Table Data Source: Lehigh Valley Planning Commission, Comprehensive Plan – Lehigh and Northampton Counties, PA. The Lehigh Valley...2030

Population Characteristics Assumptions – The resident population of the Central Slate Belt Region is becoming ethnically diverse. Population within the Boroughs still has strong influences from the immigration of Welsh, German, Italian, English and Dutch people. Washington Township's older population contains the same ethnic roots. While the influx of new families is reducing the strength of immigrant numbers, the pride and spirit of the region's cultural heritage remains vibrant. The success of the Slate Belt Heritage Center located in Bangor and the many regional celebrations and events (such as "Roseto's Big Time" and the "Slate Belt Heritage Festival") are evidence of a continuing interest in heritage. This Regional Plan assumes such interest will continue and grow.

Other major population characteristics will have an impact upon this Region. The post World War II "baby boom" population group born between 1946 and 1964 will increasingly retire from the work force during the next 25 years. The generations of younger people born after 1964 appear to have different values from the older pre 1946 and baby boom generations. The

younger generations (Generation “X” born 1965-77 and the Millennial” born 1977-2000+) are very busy people with both mother and father working. Many of these people came of age when national institutions, big businesses, and famous people came under question for their actions. Layoffs, downsizing of companies, and out-sourcing of work to other countries is becoming a way of life that requires constant improvement of job and communication skills in order to retain family supporting jobs. With the high divorce rate, the post baby boom population has become more self reliant. Although they are individualistic, there is somewhat of a trend to be group-oriented. Frequently, their group is related to work, areas of social interest, or based on Internet communications and their group is not as much based on neighborhood and community oriented contacts.

Local interest of many younger families is perked by threats to their children’s safety, education needs, and in some cases environmental and property value degradations. This plan assumes that the above trends will continue during the next 20 plus years. This plan also assumes that as a result of these trends there will be many opportunities for this region. Some of those opportunities that are considered in this plan are a need for better local education opportunities including vocational retraining, physical rehabilitation and exercise for the aging population. There may also be an opportunity to establish an environmental quality committee and neighborhood watch groups affiliated with the local governments or affiliated with a council of local government bodies such as the Slate Belt Council of Governments.



Central Slate Belt Region Comprehensive Plan Steering Committee, during a planning meeting

PUBLIC INPUT FOR CENTRAL SLATE BELT REGIONAL COMPREHENSIVE PLAN

Each of the four Central Slate Belt Regional municipalities conducted a survey of all residents as a way to obtain useful information regarding community attitudes on comprehensive planning related issues. The results of their public participation process and surveys are summarized in the back of this plan report with the special plan recommendations for each community. Following are results from a survey of the Central Slate Belt Steering Committee that was appointed by governing bodies of the four BREW municipalities.

1. How would you describe the mission of our Multi-municipal Plan?

Central Slate Belt Regional Plan Steering Committee Answer:

To provide an Inter-municipal Cooperative Planning Approach that coordinates future land uses, preserves the natural and the residential environments, accommodates new job development and tax ratables, encourages inter-municipal cooperation and service sharing, and facilitates the public interest in preserving the health, safety, general welfare, economy, and Central Slate Belt beauty of the region.

2. How would you describe the vision of our Multi-municipal plan?

Central Slate Belt Regional Plan Steering Committee Answer:

Vision statements	% agree	% disagree
a. A Central-slate belt area as a residential bedroom community with income tax to fund local and school service.	12.5%	87.5%
b. A Central-slate area with local job opportunities for at least half of the work force and with tax and service sharing.	100%	0%

c. A Central-slate belt area with strong local identity, featuring tourism linkages to both greater LV and Pocono regions.	100%	0%
Vision statements	% agree	% disagree
d. A Central-slate belt area free from all slate mine holes and slate refuse piles with either garbage or fly ash to fill the holes and generate a major revenue source for local services.	0%	100%
e. A Central-slate belt area with some or all of the slate mine remnants preserved and inter-connected walking and bicycling trails throughout the area.	100%	0%
f. A Central-slate belt area that strongly supports local education of children and adults and enhances broadband and the best internet access as an asset for home and business	90%	10%

3. What Values and/or Images come to your mind to describe the Unique Identity of Each of Our Communities?

Bangor – A struggling, quaint, close-knit, small town – working together to make changes to preserve its heritage.

East Bangor – “Mayberry, USA” - A small, old fashion, tight-knit, residential community.

Roseto – A quaint, rural small town with a strong Italian heritage.

Washington Township – A rural, agricultural area, with housing developments, open fields, commercial plazas and small village centers.

4. Public Input Also Derived By: Key Person Interviews, Public Workshops & Hearings.

CENTRAL SLATE BELT REGIONAL COMPREHENSIVE PLAN CONCEPTS

The major ideas of this Central Slate Belt Regional Comprehensive Plan are introduced in this chapter of the plan report as overarching goal statements. Each of the subsequent sections of this chapter builds upon these goals by recommending policies and implementation actions. The major plan concepts seek to accomplish the following:

1. Concentrate future Regional land development within the Boroughs of Bangor, Roseto, East Bangor, and in Washington Township near these Boroughs as well as within Township Villages. Discourage sprawl development and loss of farmland in Washington Township.
2. Encourage economic development in clusters along the existing railroad, along State Route (SR) 512, and in places that already have business development such as Downtown Bangor and (*southeast of Bangor in the vicinity of Majestic Corp*) in Washington Township and in areas that have traditionally been employment locations, such as the slate quarries and mill sites.
3. As part of an economic development and community building strategy, attract educational institutions to locate preferably in the Borough of Bangor and/or elsewhere within this Planning Region.
4. Enhance the Central Slate Belt Regional electronic communication linkages between educational institutions, businesses, home based businesses and the electronic world.
5. Preserve stream, wetlands, and important natural areas with a 50 to 100 foot set back for development, and where possible, use these open space preserve corridors as greenway connections for walkways and bikeways.
6. Retain the rural character of most of Washington Township by preserving open space and preserving meaningful open space within all future developments of any type.
7. Promote tourism as a form of low impact economic development by keeping the scale of tourism development in balance with the natural and human environment.
8. Nurture agriculture as a business activity, protector of open space, and as a way of life. Enhance the development potential of agricultural related businesses in this region.
9. Enhance systems for the movement of people and goods. Include streets, buses, parking, park and ride facilities, and heliports as well as safe and attractive pedestrian corridors.
10. Evolve the community facility and utility systems to change with the times and to be complementary with the intent and purposes of the land use plan and proposed Central Slate Belt regionalization.

Other concepts of this plan relate to the fact that the Central Slate Belt Region is part of many other geographic, economic and social worlds. Openness and cooperation should be pursued. As an example, the BREW municipalities are also part of the Slate Belt Area of northern Northampton County. This Central Slate Belt Regional Comprehensive Plan recommends that each of the BREW municipalities join the Slate Belt Council of Governments (COG).

Elaborating on goal statement #3 & 4 from above, this plan recommends linkages with vocational schools, colleges, and other institutions of higher learning. Even if these facilities are not located within the BREW communities, linkages should be pursued. Special opportunities can emerge from such relationships that combine the talent of educators along with the enthusiasm and energy of students. The contact can be enlightening for the students & beneficial for the local businesses, government & residents.

PRESERVATION PLANS

Major natural resources for preservation were identified in a Central Slate Belt Planning Region Natural Features Inventory report (NFI) prepared by Rodite & Pandl, LLC Community Planners in September of 2003. The original NFI Study focused on Washington Township, but it has regional significance as summarized below:

- **Agriculturally Productive Soils** are mapped in the NFI report. Highly productive and moderately productive soils are highlighted. Unfortunately, most of the highly productive agricultural soils are located in the western part of Washington Township along the highly accessible SR 191 highway corridor and in locations that have already experienced subdivision activity. Significant land development has already occurred on many farms in this area.
- **Farms under the two PA farmland preservation acts' protection** are mapped in the NFI. The mapped area includes both the Central Slate Belt Area and a strip of land along the Washington Township Boundaries that extend into the adjacent three townships. The map portrays very extensive farmland act participation, particularly in the southern part of Washington Township and along the eastern and southwestern Township boundaries.
- **Major natural areas of statewide significance** are identified in the Central Slate Belt Region as unique and important for the protection of biological diversity. Each one of the following areas is identified on a map in the NFI report.

 - Blue Mountain
 - Roseto Pond
 - Angle Swamp

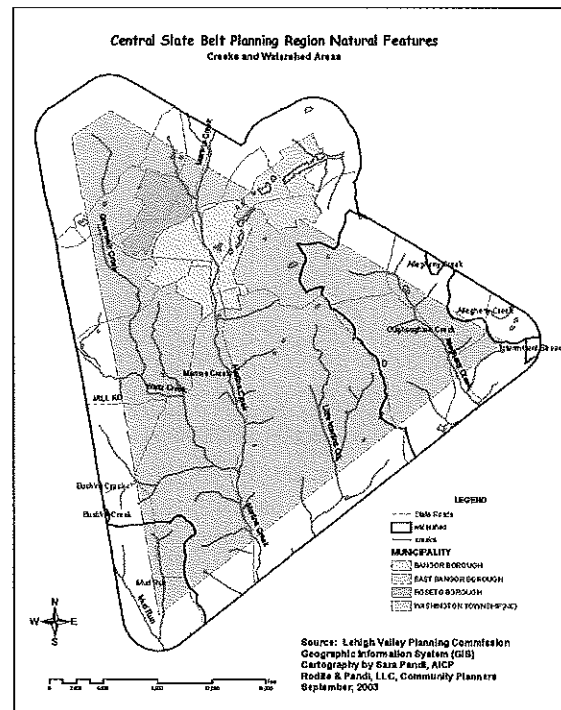
- East Bangor Swamp Complex
- Wooded Areas

- **Major woodlands, watersheds and creeks** are identified in the NFI. Combining the NFI report and the LVPC Lehigh Valley 2003 Comprehensive Plan regarding stream quality reveals the following:

 - **Martins/Jacoby Creek** including its tributaries (Greenwalk and Waltz Creeks) is a Trout Stocking (TSF) Stream.
 - **Little Martins Creek, Allegheny Creek, Oughoughton Creek, and Mud Run** are all Cold Water Fishes (CWF) Streams

**Natural Features Map:
CREEKS & WATERSHEDS**

(See chapter 3 for full size version of this map. This map and other maps in this section are "thumbnail" miniature copies. They are presented here for general reference only. On this map, watersheds are named and the watershed boundaries are outlined with a black line; streams are also named.)



RIPARIAN (STREAMSIDE) BUFFERS PLAN

The above streams (*creeks on above Natural Features Map*) are quality streams. They are major assets to the Central Slate Belt Region. These streams connect each community with the others. Stream based connectivity and interrelationship combines the natural and human environment into one major watershed neighborhood. This Central Slate Belt Regional Plan recommends the creation, development and continual respect of riparian buffers along every stream and minor tributary in this region.

Riparian buffers are one way of respectfully dealing with storm water runoff. This plan recommends storm water control approaches such as minimizing impermeable land coverage on each parcel of land, developing and maintaining effective ground water retention, detention and aquifer recharge systems in every development.

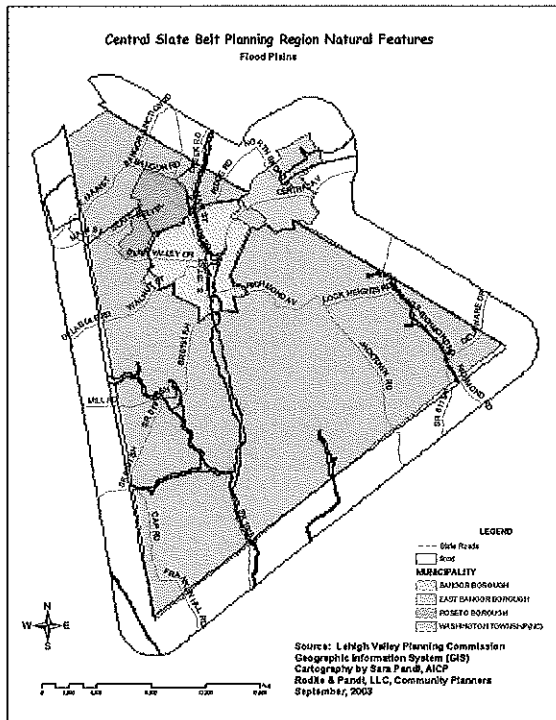
Wetland (including swamps-bogs etc) should also be protected by riparian buffering. Wetland areas frequently act as ground water recharge areas.

GOAL

To protect streams and wetlands so they can provide numerous recreational and environmental benefits to Central Slate Belt Region residents.

POLICIES

- ◆ Encourage creation of quality streamside buffers on lands that border streams.
- ◆ Require riparian buffers of 100 feet along Martins Creek and buffers of at least 50 feet along all other streams.
- ◆ Inform Developers about quality riparian buffers that contain a variety of native trees and plants. Discourage and/or restrict the development of riparian buffers with monocultures of exotic vegetation.
- ◆ Educate officials and landowners as to why it is important to protect rivers and streams.
- ◆ Encourage stream conservation plans.
- ◆ Encourage landowners with streams on their property to have conservation plans prepared that include best management practices for riparian buffers.
- ◆ Encourage landowners to put conservation easements on the parts of their property that include riparian buffers.
- ◆ Promote the use of existing voluntary best management practices in the management of forestry activities in and along streamside buffer areas.
- ◆ Include provisions for the preservation and restoration of riparian buffers in the Borough and Township zoning ordinances, & subdivision and land development ordinances.
- ◆ Give high priority to recreation, greenway and open space projects that involve streams.
- ◆ Offer opportunities for colleges and universities to study streams and to adopt stream segments to develop riparian buffers.
- ◆ Encourage public and private local school teachers to monitor stream and riparian buffer quality and to work with students from colleges and universities who adopt a local stream and buffers.
- ◆ Facilitate the collaboration between young and senior citizen residents to adopt stream segments and their riparian buffers to monitor their quality and do streamside clean up when necessary. Boy scouts, girl scouts and senior citizens through a community center facility could be the groups to initiate this policy.



*The above thumbnail (miniature) map is entitled **Natural Features Map: FLOOD PLAINS** (This map generally identifies where flood plains exist. Much more detailed maps are required to specifically locate the flood plain for a property or group of properties. The Geographic Information System (GIS) prepared by the Lehigh Valley Planning Commission provides more detailed information on the location and extent of flood plains. That information may be viewed together with other data layers such as property lines and streets to more specifically ascertain the impact of flood plains. The full size version of this FLOOD PLAIN map is located in Chapter 3 of this Comprehensive Plan report.)*

FLOODPLAINS

Several of the villages in Washington Township (i.e. Ackermansville, Factoryville, and Richmond) and the Borough of Bangor have major floodplain areas. In some cases, development has already encroached on these flood plain areas. The advent of flooding is like a game of chance. It is a question of when the next flood will occur. A major flood event is likely to occur and it is most prudent to manage land use so as to reduce the damage to individual properties and to downstream properties in the Central Slate Belt Region. This Regional

Comprehensive Plan recommends a region-wide approach to this issue with the following goal and policies:

GOAL

To minimize flood damage and protect floodplains.

POLICIES

- ❑ Prohibit new buildings, structures and fill in the 100-year floodplain except for highways and certain other structures owned or maintained by the Commonwealth of Pennsylvania, municipalities or public utilities as defined and regulated in Chapter 106 Floodplain Management of Title 25 Environmental Protection, Pennsylvania Code.
- ❑ Redevelopment of vacant, formerly developed land is not recommended within the floodway. Outside the floodway, but within the flood plain fringe, adequate flood proofing measures must be taken for the reuse or substantial improvement of existing buildings or the redevelopment of vacant but formerly developed land.
- ❑ Floodways and in some cases parts of the 100 year flood plain land areas should be purchased by a public body if these areas have potential for linear park and/or riparian buffer use. Otherwise, zoning regulations should prevent development of these flood impacted areas. As part of that acquisition (in fee simple or development rights purchase), these areas should be included in riparian buffers and where possible developed as linear parks.

WETLANDS PRESERVATION PLAN

GOAL

To protect the remaining wetlands in the Central Slate Belt Region.

POLICIES

- * Preserve 100% permanent open space in all wetlands. All wetlands are protected and regulated by State and Federal regulations. A wetland delineation should be obtained from the appropriate public agency.
- * Require a 50 foot riparian type buffer around all wetlands and a 100 foot buffer around all wetlands that are in critical aquifer recharge areas particularly in the foot hills of the Blue Mountain and the Greenwalk Creek watershed. Both of these areas provide water sources for human consumption. Offer opportunities for colleges and universities to study streams and to adopt stream segments to develop riparian buffers.
- * Encourage public and private local school teachers to adopt certain wetlands that exist in key stream watersheds. Facilitate the collaboration between young and senior residents to monitor the quality of their adopted stream and do wetland buffer clean up when necessary. Boy scouts, girl scouts and a senior center facility group could be the groups to initiate this policy.

The above map is entitled - Natural Features Map: ELEVATION CONTOURS (This map identifies lines of equal land elevation above sea level at 20' intervals. Very steep slopes are evident on this map where the brown contour lines are clustered together appearing as brown bands.)

STEEP SLOPES PLAN

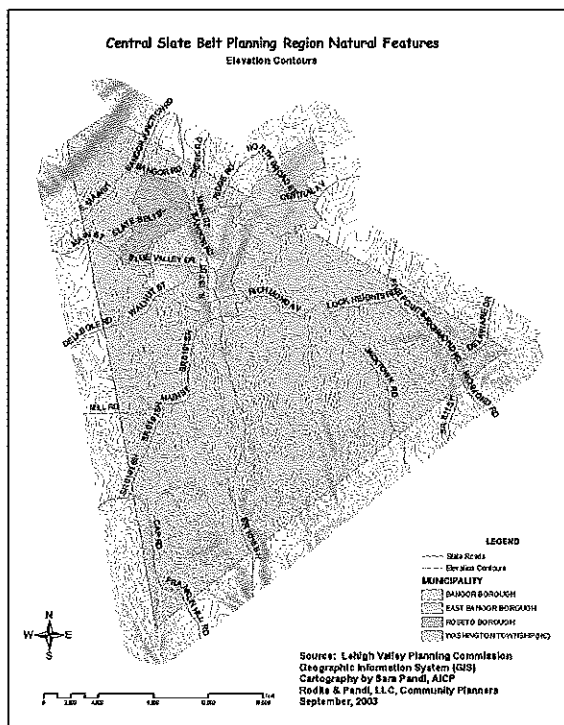
The Blue Mountain ridge and roadways such as SR 191 that descend from that ridge provide beautiful views of the Central Slate Belt Region and beyond. There are other promontory views along SR 191 throughout its corridor in this Planning Area. Many of the views are of a picturesque quilt like pattern of farms, streams, and housing. It is very tempting for people to want to capture that type of view by building their home on a slope that provides such a vista. However, like the old parenting term, "look but don't touch" there are hazards for development of steep slope areas. For this reason the Central Slate Belt Regional Comprehensive Plan adopts a similar set of goals and policies as proposed in the Lehigh Valley Comprehensive Plan as follows:

GOAL

To minimize the adverse environmental impacts of steep slope development.

POLICIES

- ✘ Future development is not recommended on slopes greater than 25%.
- ✘ On slopes of 15% to 25%, large lots with low site coverage standards should be maintained and special erosion and storm drainage controls enforced. This Plan recommends a maximum of one dwelling unit per acre if public water and sewers are available. A minimum lot size of three acres is recommended if an on-lot water supply or sewer system is used. In boroughs and other urban areas, infill development on steep slopes should be allowed in accord with the zoning ordinance if site



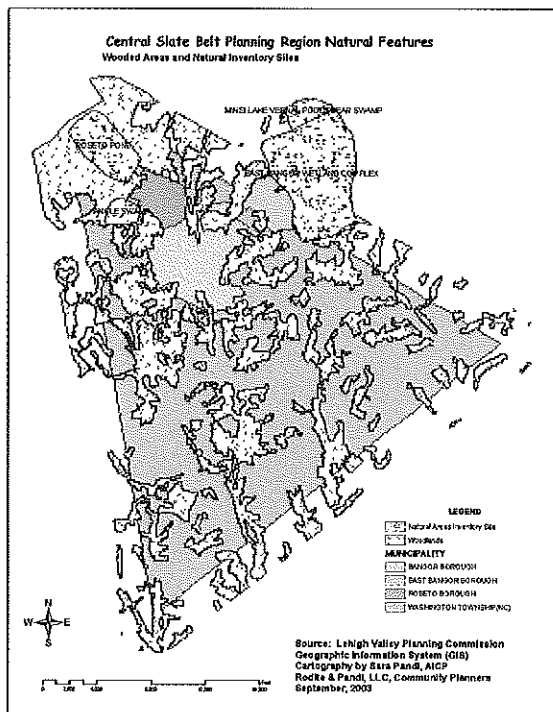
design can eliminate or greatly reduce the negative environmental impacts of the project.

- ✘ Encourage the treatment of steep slopes as areas where plantings and ground cover should be planted and preserved in a manner similar to the stream side and wetland buffers.

CARBONATE GEOLOGY

The geology of Washington Township does not include areas underlain by carbonate rock. (MOST OF THE AREA IS UNDERLAIN BY: (omb) BUSHKILL MEMBER, (omp) PEN ARGYL MEMBER, AND (omr) RAMSEYBURG MEMBER.

The following map is entitled Natural Features Map: WOODLANDS & NATURAL INVENTORY SITES (Wooded areas are outlined in green; natural areas of recognized environmental value, "natural inventory sites," are outlined in grey and are named.)



WOODLAND & NATURE INVENTORY PLAN

The Central Slate Belt Planning Region contains nearly 30,000 acres of woodlands. Significant wooded areas are located in the northern quarter of the planning region and

they extend into the Boroughs of Bangor, Roseto and East Bangor. Together with the creeks, the associated woodland provides important wildlife corridors that serve as habitat and migration paths throughout the planning region.

The woodland areas in Washington Township are predominantly mixed oak forests generally located along stream corridors and steep slopes. There are isolated hemlock forest associations along the north facing slopes of Martins Creek. Although the forest is fragmented due to development, significant forested areas occur on the Blue Mountain slopes and Nagy Hill, as well as within the riparian corridors that bisect the township in a general north south direction.

GOAL

To preserve the natural woodlands along steep slopes and watercourses in order to maintain their functions in erosion control, slope stabilization and as important wildlife corridors.

POLICIES

- To preserve Nature Preserve Areas identified on the Natural Inventory.
- To protect established woodland areas, especially within areas identified as containing important natural features.
- To provide property owners with education and incentives to protect woodlands on private property.
- To encourage site development with sensitivity to preserving trees and uninterrupted woodland areas.

IMPLEMENTATION

Prior to development, wooded areas and significant mature trees should be located on the development plan and development designed to preserve existing woodlands.

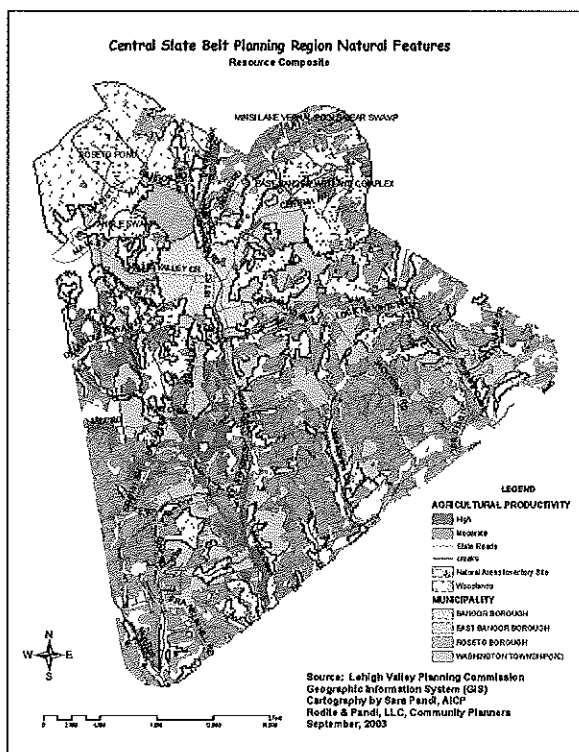
During construction, trees and woodland areas that are to be preserved should be

clearly delineated to protect them from clearing, grading, construction traffic and storage.

The BREW Township and Boroughs should reserve the right to require an arborist as a consultant on important wooded tracts of land.

The BREW Township and Boroughs should require a tree replacement plan when mature trees are removed during development or are removed as part of wood harvesting. (Require planting of trees for any new development)

The following map is entitled Natural Features Map: RESOURCE COMPOSITE (This map presents the location of high quality agricultural soils in green and moderate quality agricultural soils in light brown along with other natural inventory features.)



NATURAL FEATURES PLAN

The Central Slate Belt Region includes four natural features identified by the State to be of regional significance. Blue Mountain, extending along the northwestern most corner of the planning area, is identified as an area of exceptional significance, because of its natural diversity, relatively uninterrupted expanse and importance in

the major east coast raptor migration flyways.

Within Washington Township, Roseto Pond and Angle Swamp have been identified as significant because of their population of Pennsylvania rare and endangered plant species. Additionally, a portion of the East Bangor Swamp Area of Upper Mount Bethel Township extends into the eastern portion of Roseto Borough and a small part of Washington Township. It is listed as a high priority site for preservation, since it represents the largest contiguous wetland complex in Northampton County.

GOAL

To protect significant natural features from disruption and development.

POLICIES

- Acquire conservation easements to significant parts of the Blue Mountain and East Bangor Swamp as the highest regional conservation priority.
- Work with property owners on Angle Swamp and Roseto Pond to prevent further degradation.
- Work with municipalities abutting areas of natural significance to ensure a comprehensive and coordinated approach to their preservation.

IMPLEMENTATION

Pursue grants and assistance from regional land conservancies to preserve areas identified as high priority natural features.

Develop best management practices for roads adjacent to natural areas, including non destructive weed abatement and pest management. Use conservation development practices to ensure that the most sensitive portions of a site are protected from disturbance.

The following map is entitled Natural Features Map: PARCELS WITH ACT 319 OR 515 STATUS (This map presents –in light

gold color - the location of parcels in Washington Township that are included in either the Act 319 or 515 agricultural land preservation programs)

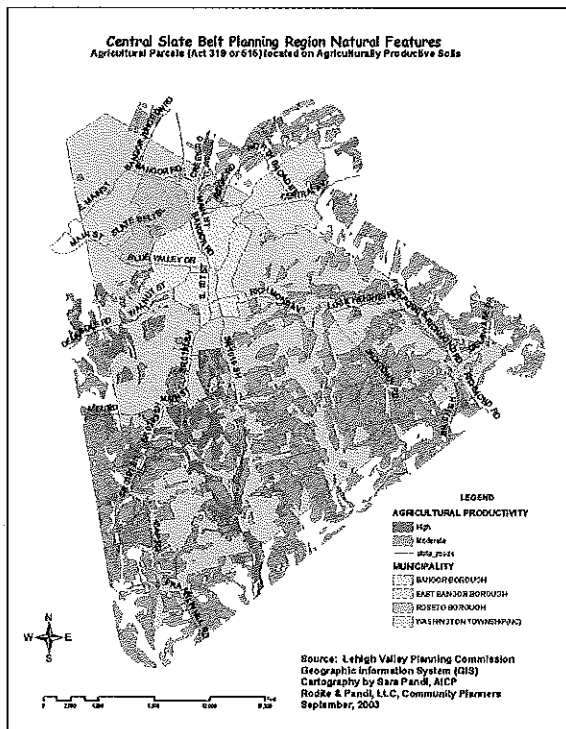
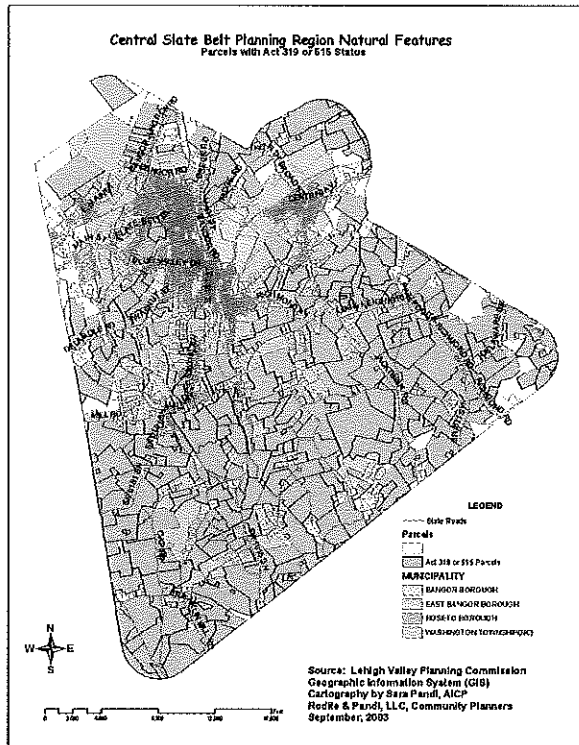
location of Act 319 & 515 farms on high quality soils – in green – and the location of Act 319 & 515 farms on moderate quality agricultural soils in gold-brown color.)

FARMLAND PRESERVATION PLAN

The Central Slate Belt Area (in Washington Township) has some of the best farmland soil in Pennsylvania. Unfortunately, most of this good soil area is in the western part of Washington Township where it is more easily accessible to SR 191. This relatively good accessibility contributes to the attractiveness of developing farms in this area as residential subdivisions. The attractiveness relates to the relatively easy commute on SR191 to employment opportunities either in the Lehigh Valley or north to the Poconos or to the New Jersey-New York metropolitan area. In fact, looking at a parcel map and land use map, it is evident that there are many lots and new homes in this good agricultural soil area of Washington Township.

The positive side of the agricultural soil situation relates to soils that are classified as moderately productive agricultural soils. Washington Township lands with moderately productive agricultural soils are in the southern and southeastern parts of the Township. These sections of the Township are not as accessible except for the far eastern part of the Township via US 611 that provides access. For limited accessibility and other reasons, there seems to be slightly less subdivision activity in the southern and southeastern parts of the Township. This provides a window of opportunity for more effective farmland preservation policies to be implemented.

In June of 2004, Washington Township with the assistance of Rodite & Pandl, LLC Community Planners, conducted a survey of farmland owners. The response rate was 39% of the 165 rural land owners (owning 10 acres or more) surveyed. A summary of responses follows:



The forgoing map is entitled *Natural Features Map: AGRICULTURAL PARCELS (ACT 319 & 515) LOCATED ON AGRICULTURALLY PRODUCTIVE SOILS* (This map presents the

- 81% were from smaller farms in the 10 to 75 acre size
- 65% of the farmland parcels were still being farmed.
- Types of farming from most to least- field crop, equestrian, live-stock, other (tree, hay, fish), orchards, and dairy.
- Current plans: 54% wish to remain in agriculture, 3% wish to sell, 11% wish to retain development rights, 32% were unsure of what to do.
- 71% agreed that Washington Township should establish an Agricultural Protection Zone. (29% did not agree)
- 56% favor a zoning approach that would preserve farmland by restricting development in areas zoned for agriculture. (13% do not favor this approach and 31% are not sure)
- Methods to preserve farmland received the following support:
 - 48% agree with a restriction to develop only 10% of farmland.
 - 19% agree with a restriction to develop only 20% of farmland.
 - 10% agree with a restriction to develop only 30% of farmland.
 - 23% agree with a restriction to develop only 50% of farmland.

areas where farming is the recommended use.

- Encourage farm-related business in areas where farming is recommended.
- Protect recommended farmland preservation areas from residential development and non-farm activities that interfere with normal farming practices.
- Target strategic areas for preservation such as prime farmland and areas where clusters of like-minded farmers own land that they wish to preserve in farmland.

GOAL

To preserve approximately 70% of farmland and open space in Washington Township for agriculture.

POLICIES

- Create effective agricultural zoning.
- Support agricultural security areas, and purchase of agricultural easements in recommended farmland preservation areas.
- Preserve large contiguous clusters of farmland in areas that have not been substantially urbanized.
- Discourage extension of central water and sewer services and new roads into

LAND USE AND HOUSING PLAN

GROWTH TRENDS AND FORECASTS

The population, household, and land development forecasts for the BREW Regional Municipalities are presented in the following tables:

Central Slate Belt Region – Population Forecast LVPC			
	2000	2030	Change
Bangor	5,319	5,508	189
Roseto	1,653	1,653	0
East Bangor	979	1,103	124
Washington	4,152	6,855	2,703
Total	12,103	15,119	3,016

Central Slate Belt Region – Household Forecast			
	2000	2030	Change
Bangor	2,105	2,285	180
Roseto	640	671	31
East Bangor	387	457	70
Washington	1,601	2,673	1,072
Total	4,733	6,086	1,353

Central Slate Belt Region – Land Use Forecast of Developed Acres			
	2001	2030	Change
Bangor	815	855	40
Roseto	283	290	7
East Bangor	298	323	25
Washington	3,452	4,702	1,250
Total	4,848	6,170	1,322

Source: LVPC, Rodite & Pandl, LLC

GENERAL GROWTH GOALS

This Central Slate Belt Regional Plan envisions an inter-municipal cooperative approach to guiding land development in the Central Slate Belt Region toward the following over-arching goals:

- ◆ *To seek preservation of open space and farmland in Washington Township where rural and open space are recommended by this plan.*

- ◆ *To encourage new in-fill housing and economic development in the Boroughs.*
- ◆ *To attract suburban and cluster housing development in Washington Township in designated Villages and in the areas adjacent to the Boroughs.*

If this Central Slate Belt Regional Plan is effective in reaching its goals, then some of the LVPC projected land development and population growth may be shifted from Washington Township into the three Boroughs.

GENERAL GROWTH POLICIES

- **Encourage cluster housing development as part of Conservation Planning in designated areas of Washington Township.**
- **Consider a zoning ordinance provision that would provide for the transfer of development rights from properties in rural and agricultural zoning districts into Residential and Village Zoning Districts**

EMPLOYMENT GROWTH ESTIMATES

When the Boroughs, villages and Township of this Central Slate Belt were first created and developed, industry and business were an integral part of the local community. During the last half century, the trend has been to concentrate industry and major business in regional locations, along major thoroughfares, centralized

for a larger market area. More recent trends include work at home and even primary businesses operating out of the home. A recent Pennsylvania Municipalities Planning Code (MPC) amendment acknowledges these trends. The MPC requires that every community permits, as a matter of right, "Home Based Businesses" within the limits of State and local law.

In this context, the following policies are proposed by this Plan:

- To be a welcoming community to the "Technology Population" including the home based knowledge workers.

- To encourage connections among home based business people and other businesses within the Central Slate Belt Region.
- To facilitate a networking between schools of higher learning and all businesses including home based businesses in this Central Slate Belt Region.
- To encourage research to identify opportunities for recycling-based economic development and reclaiming of lands covered with remnants of slate mining.

LAND USE AND HOUSING PLAN FOR THE CENTRAL SLATE BELT REGION MULTI-MUNICIPAL PLAN

The major land use plan and housing plan goals are related to the overarching goal statements agreed upon by the regional Central Slate Belt Regional Steering Committee. Those goals were introduced in the third section of this Chapter and are presented with related policy statements in this section.

LAND USE GOALS & POLICIES

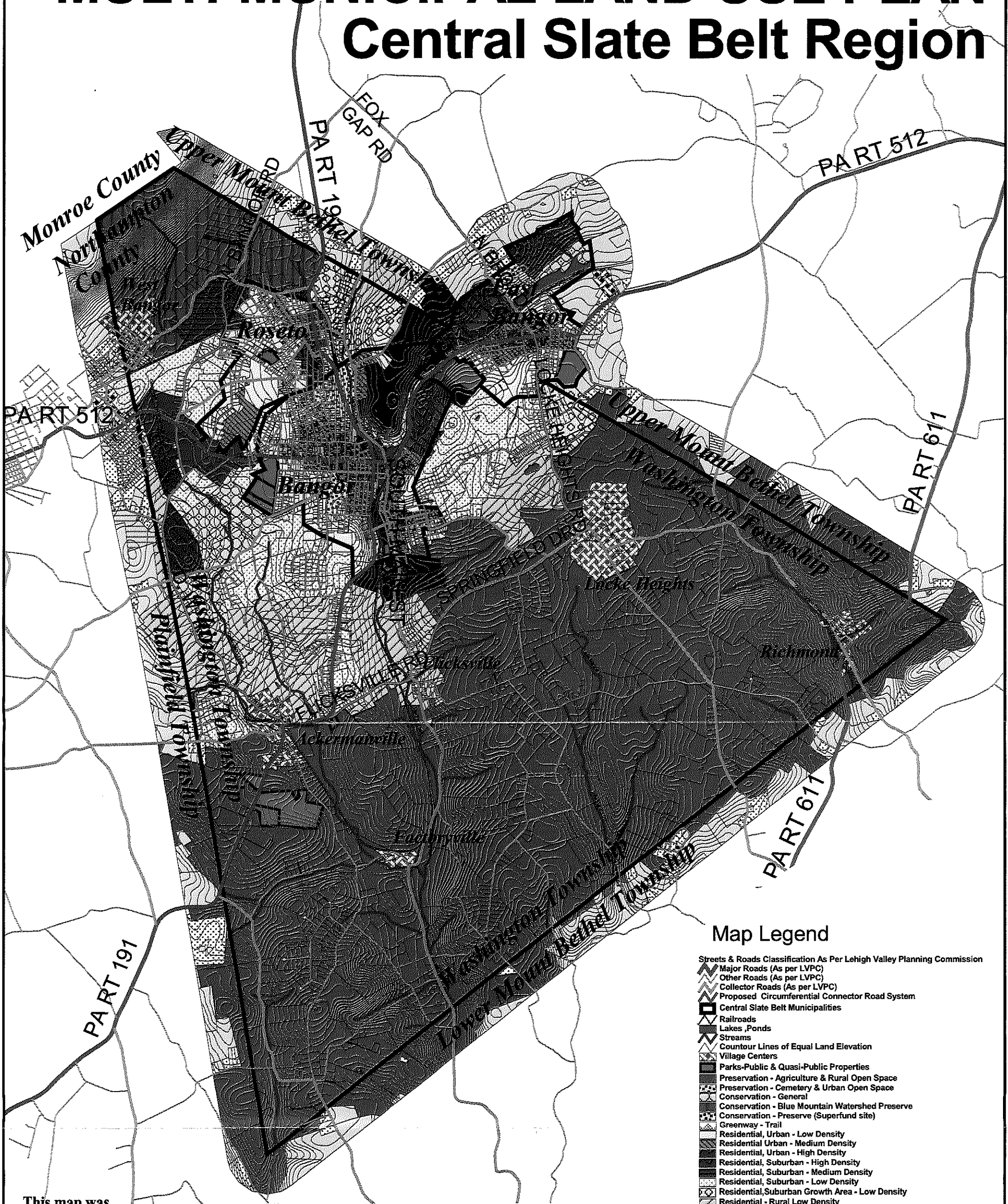
First. To concentrate future Regional urban and suburban type land development within the Boroughs of Bangor, Roseto, East Bangor, and in Washington Township near these Boroughs, where development may be easily served by existing sanitary sewage systems. Further growth should be encouraged within Township Villages. Discourage sprawl development and loss of farmland in Washington Township and retain rural Township environment.

a. The primary regional land use policy for the First Goal will be to create coordinated zoning that will concentrate urban development in the Boroughs, in the Villages of Washington Township and in the sections of Washington Township shown on the accompanying regional land use plan map proposed for urban land use. These areas are to be designated as **GROWTH AREAS** (consistent with MPC term within multi municipal plan) where orderly and efficient development should take place. The growth areas are intended to accommodate the projected growth within the planning area for the next 20 years. Commercial and industrial and institutional uses and services to these uses should fall within this area.

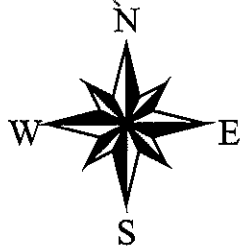
b. Secondly, the Township village areas outside the initial growth area are designated as **POTENTIAL FUTURE GROWTH**

MULTI-MUNICIPAL LAND USE PLAN

Central Slate Belt Region



This map was financed [in part] by a grant from the Commonwealth of Pennsylvania Department of Community and Economic Development.



Rodite & Pandl, LLC,
Community Planners &
Landscape Architects
Map Date August 2005

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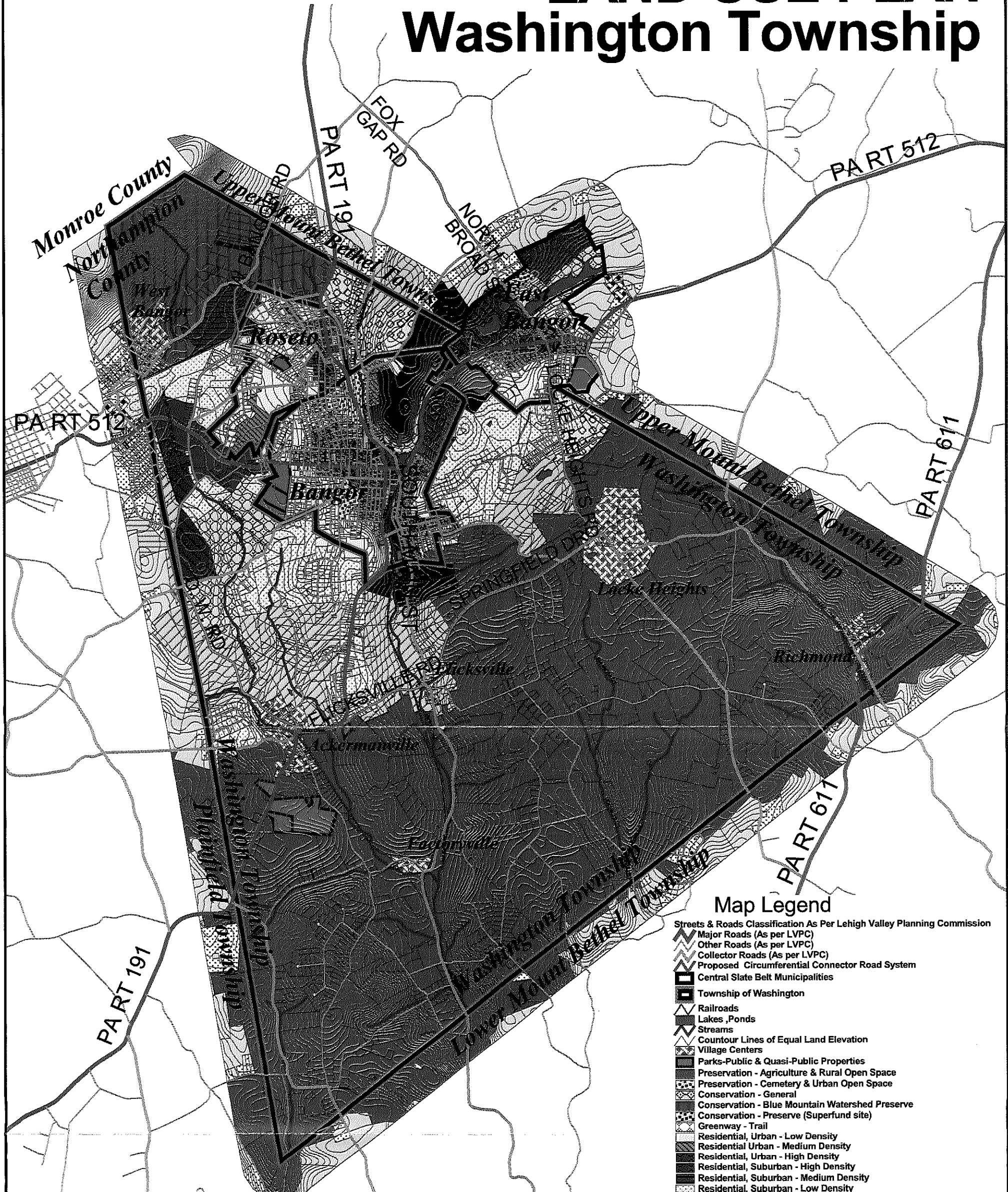
Map Legend

- Streets & Roads Classification As Per Lehigh Valley Planning Commission
- Major Roads (As per LVPC)
- Other Roads (As per LVPC)
- Collector Roads (As per LVPC)
- Proposed Circumferential Connector Road System
- Central Slate Belt Municipalities
- Railroads
- Lakes, Ponds
- Streams
- Contour Lines of Equal Land Elevation
- Village Centers
- Parks - Public & Quasi-Public Properties
- Preservation - Agriculture & Rural Open Space
- Preservation - Cemetery & Urban Open Space
- Conservation - General
- Conservation - Blue Mountain Watershed Preserve
- Conservation - Preserve (Superfund site)
- Greenway - Trail
- Residential, Urban - Low Density
- Residential, Urban - Medium Density
- Residential, Urban - High Density
- Residential, Suburban - High Density
- Residential, Suburban - Medium Density
- Residential, Suburban - Low Density
- Residential, Suburban Growth Area - Low Density
- Residential - Rural Low Density
- Business - Central Business District
- Business - Neighborhood and Highway
- Business - General & Mining
- Business Parks and Industry
- EXISTING LAND USE ADJACENT TO REGION
- Agricultural & Vacant
- Offices
- Parks & Other Outdoor Recreation
- Public & Quasi Public
- Residential
- Retail/Commercial
- Transportation, Communications & Utilities
- Warehousing/Distribution

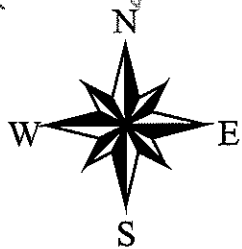
NOTE: Proposed Central Slate Belt Land Uses extend into adjacent municipalities on those properties that are located in the Central Slate Belt Region as well as in an adjacent municipality.

Central Slate Belt Region - Boroughs of Bangor, Roseto, East Bangor, and Township of Washington

LAND USE PLAN Washington Township



This map was financed [in part] by a grant from the Commonwealth of Pennsylvania Department of Community and Economic Development.



Rodite & Pandl, LLC,
Community Planners &
Landscape Architects
Map Date December 2005



Map Legend

- Streets & Roads Classification As Per Lehigh Valley Planning Commission
- Major Roads (As per LVPC)
 - Other Roads (As per LVPC)
 - Collector Roads (As per LVPC)
 - Proposed Circumferential Connector Road System
 - Central Slate Belt Municipalities
 - Township of Washington
 - Railroads
 - Lakes, Ponds
 - Streams
 - Countour Lines of Equal Land Elevation
 - Village Centers
 - Parks - Public & Quasi-Public Properties
 - Preservation - Agriculture & Rural Open Space
 - Preservation - Cemetery & Urban Open Space
 - Conservation - General
 - Conservation - Blue Mountain Watershed Preserve
 - Conservation - Preserve (Superfund site)
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 - Residential Urban - Medium Density
 - Residential, Urban - High Density
 - Residential, Suburban - High Density
 - Residential, Suburban - Medium Density
 - Residential, Suburban - Low Density
 - Residential, Suburban Growth Area - Low Density
 - Residential - Rural Low Density
 - Business - Central Business District
 - Business - Neighborhood and Highway
 - Business - General & Mining
 - Business Parks and Industry
- EXISTING LAND USE ADJACENT TO REGION
- Agricultural & Vacant
 - Offices
 - Parks & Other Outdoor Recreation
 - Public & Quasi Public
 - Residential
 - Retail/Commercial
 - Transportation, Communications & Utilities
 - Warehousing/Distribution
- Note: Central Slate Belt Proposed Land Uses extend into adjacent municipalities on properties that are also in the Central Slate Belt Region.

Central Slate Belt Region - Boroughs of Bangor, Roseto, East Bangor, and Township of Washington

AREAS, where orderly extension of services and additional development may occur within the next thirty years.

c. The Rural and Agricultural Areas should be designated as RURAL RESERVE, including the Blue Mountain Conservation area, watershed protection areas and the agricultural preservation areas. No infrastructure improvements will be extended here and rural resources and supporting land uses are accommodated. Residential densities are compatible with continual agricultural use of the land, including consideration of effective agricultural zoning as has been used in Lehigh County.

d. An important implementation measure will be to update the Act 537 Sewerage Facilities Plans for all Central Slate Belt Regional Municipalities to provide for sewer service extensions consistent with the regional land use plan and identified areas for growth and preservation in this plan.

Second. To encourage economic development in clusters along the existing railroad, along SR 512, and in places that already have business development such as Downtown Bangor and southeast of Bangor in Washington Township.

a. The Borough of Bangor should continue in its efforts to revitalize its downtown with Pennsylvania Main Street and similar programs.

b. Existing business areas within Roseto, East Bangor, and Washington Township should be strengthened through Zoning and efforts to bolster existing businesses and attraction of new compatible businesses.

Third To encourage new development in areas that will be reclaimed from sites that have been

previously mined or used for manufacturing. These sites have historically served as regional employment centers and should be re-used for new employment generating activities.

a. The primary regional land use policy for the Third Goal will be to secure plans and actual infrastructure improvements for “brownfields (old industrial sites) & greyfields (old mined sites)” so that these sites will have good access, feasible land development plans and marketing plans that are ready to implement.

b. The secondary regional land use policy for the Third Goal will be to provide a coordinated approach to directing prospective developers to the preferred economic development sites and away from the “greenfields (farmlands and open space lands).” These preferred economic development sites are located within the designated GROWTH AREA of the plan.

Fourth. To attract educational institutions to locate preferably in the Borough of Bangor and/or elsewhere within this Planning Region.

a. The primary regional land use policy for the Fourth Goal will be the belief that there is value for an educational institution to locate in the Central Slate Belt Region both for that institution as well for our region. A fact sheet should be prepared to list the advantages of this location to potential educational developers.

b. The secondary regional land use policy for the Fourth Goal will be outreach and marketing directly to nearby educational institutions such as Northampton Community College, Lafayette College, East Stroudsburg University, Lehigh University and others for expansion of their facilities with a Slate Belt branch.

Fifth. To enhance the Central Slate Belt Regional electronic communication linkages between educational institutions, businesses, home based businesses and the electronic world.

a. The primary regional land use policy for the Fifth Goal will be to authorize the Slate Belt Council of Governments and the Slate Belt Chamber of Commerce to establish an agreement with one or more communication companies to provide state-of-the-art communications for the Central Slate Belt Region and the entire Slate Belt Area. This could be organized in conjunction with the Bangor Area School District and its access to high speed internet communication services.

b. The secondary regional land use policy for the Fifth Goal will be to facilitate home based businesses in this region to have access to the above proposed state-of-the-art broadband and other communication systems. The Slate Belt Chamber of Commerce and Slate Belt COG should also provide educational opportunities regarding the use of these systems and the opportunity to market local products nationally and internationally through the internet.

Sixth. To preserve natural features and agricultural areas.

a. The primary regional land use policy for the Sixth Goal will be to revise the local zoning ordinances and the local subdivision and land development ordinances to require preservation and protection of natural areas.

b. The secondary regional land use policy for the Sixth Goal will be to preserve stream, wetlands, and important natural areas with a 50 to 100 foot set back for development. Where possible use these open space preserve corridors as greenway connections for walkways and bikeways.

Seventh. To retain the rural character of most of Washington Township by preserving open space and preserving

meaningful open space within all future developments of any type.

a. The primary regional land use policy for the Seventh Goal will be to create and adopt a practical zoning ordinance to preserve meaningful open space in Washington Township.

b. The secondary regional land use policy for the Seventh Goal will be to pursue the purchase of farmland easements using State, County and Local sources of funding.

c. The tertiary regional land use policy for the Seventh Goal will be to encourage the use of farmland preservation and open space preservation through conservation easements and open space acquisitions that could provide greenway connections.

Eighth. To promote tourism as a form of low impact economic development by keeping the scale of tourism development in balance with the natural and human environment.

a. The primary regional land use policy for the Eighth Goal is to support the efforts of the Slate Belt Heritage Center and others in their efforts to create a recreation of a slate mine and related craft village in the Slate Belt Area.

b. The secondary regional land use policy for the Eighth Goal is to continue the local community celebrations and other culturally unique events and to attract more visitors to enjoy these events.

Ninth. To nurture agriculture as a business activity, protector of open space, and as a way of life. Enhance the development potential of agricultural related businesses in this region.

a. The primary regional land use policy for the Ninth Goal will be to minimize real estate tax costs and municipal regulations so that agriculture as a business can be prosperous.

b. The secondary regional land use policy for the Ninth Goal will be to seek incentives and innovative ideas

for agriculture in much the same way that the Chamber of Commerce and regional economic development organizations nurture other economic development. Agriculture is more than a business; Agriculture generally preserves open space, provides a bucolic landscape, and a rural, rustic, pastoral environment that adds to the regional quality of life.

Tenth. To enhance systems for the movement of people and goods. Including streets, buses, parking facilities, park and ride facilities, and heliports as well as safe and attractive pedestrian corridors.

a. The primary regional land use policy for the Tenth Goal will be to establish a regional transportation improvement advocacy group. There have been proposed improvements on the State Plan that were put off and some dropped because of a lack of continuous local support. The Slate Belt Council of Governments should take the lead in creating this transportation advocacy group.

b. The secondary regional land use policy for the Tenth Goal will be to create an access management plan, official map, and other approaches to assure that new development takes place in a manner that is consistent with the regional plan and/or a way that is respectful of the concepts of the plan. In addition, off-site transportation improvements should be paid for at least in part by the proposed developments.

Eleventh. To expand and improve the community facility and utility systems to change with the times and to be complementary with the intent and purposes of the land use plan and proposed Central Slate Belt regionalization.

a. The primary regional land use policy for the Eleventh Goal will be to update all of the Central Slate Belt Regional

municipal Act 537 Sewerage Facilities Plans at or nearly at the same time so that they are coordinated with one another. Those plans ought to consider the new Central Slate Belt Region Comprehensive Plan.

b. The secondary regional land use policy for the Eleventh Goal will be to coordinate and consolidate, where appropriate, municipal services. This could include police and public works services. The Slate Belt Council of Governments is providing an opportunity to explore such options on a mix and match basis with municipalities being able to opt-in or opt-out of each service as they choose.

HOUSING

Providing adequate housing within a high quality living environment are important concerns for the Central Slate Belt Region. This plan report section incorporates the Lehigh Valley Planning Commission Comprehensive Plan...2030 as a basis for this housing plan section. This plan focuses on the general public interest issues of quantity and quality of housing.

This plan is also based on a projected population range of between 6,170 to 7,198 persons living in Washington Township by the year 2030 and a modest amount of growth within the Boroughs (approximately 312 persons). The Lehigh Valley Planning Commission projected population for Washington Township is 6,855 and 15,119 for the entire Central Slate Belt Region. For housing needs, this plan section will seek to accommodate an additional 2,703 persons in the Township and 3,016 in the Central Slate Belt Region.

In the three Boroughs, the average household size will continue to decline. Future housing needs in the three Boroughs should result in a need for small dwelling units for single and two person families both in the elderly and in the young singles and couples households.

The projected housing need for 2030 is 1,072 additional homes in Washington Township and 281 additional homes within the three Boroughs combined.

Central Slate Belt Regional housing goals, objectives and policies that relate to housing quality and quantity issues are presented below:

HOUSING QUANTITY & GENERAL GOALS

- *To provide for a supply of housing within the Central Slate Belt Region that as a whole will meet the projected population and household needs by the year 2030.*
- *To provide for housing choice with a variety in housing types including single-family detached homes, single family attached homes, residences in 2 to 4 unit structures, and residences in 5+ unit structures, as well as mobile homes.*
- *To provide opportunities for home ownership of existing housing units. The housing stock within the Boroughs is generally affordable, but the percentage of homeownership has declined and there are a significant number of vacant units available. These homes represent an opportunity for market rate affordable homes. Promoting ownership in the older residential areas could increase the pride of ownership in these neighborhoods and provide for variety in available housing which could decrease development pressure in other parts of the plan area.*

- *To increase the percentage of home owner occupied housing units within the Boroughs of the Central Slate Belt Region.*
- *To preserve existing housing stock and increase its safety and quality through housing inspections, rehabilitation programs, and housing maintenance education.*
- *To provide housing opportunities for residents in different age groups, from young families to senior citizens.*

POLICIES RELATED TO HOUSING QUANTITY AND OTHER GOALS

Policies recommended in the Lehigh Valley ... 2030 Comprehensive Plan should be incorporated where appropriate as policies of this Central Slate Belt Regional Comprehensive Plan.

IMPLEMENTATION

The Central Slate Belt municipalities should adopt new zoning ordinances that will accommodate the above recommended housing plan supporting a variety of densities and promoting quality housing units. Within this recommendation there is room for local municipal choice. Each of the Central Slate Belt municipalities may adopt their own separate zoning ordinance or they may join with one or more neighboring municipalities to adopt a multi- municipal zoning ordinance that will separately and/or jointly seek to achieve the above Central Slate Belt Regional housing related goals.

HOUSING QUALITY GOALS

- *To adopt the required ordinance to locally administer the new Pennsylvania Uniform Construction Code (UCC).*
- *To have each of the Central Slate Belt municipal governments elect to administer part (appeals board) or*

all of the UCC through the regional Slate Belt Council of Government (COG).

- To consider adopting an ordinance that will require, all housing units when they are occupied initially and reoccupied in the future, to meet the minimum health and safety requirements established by the local governments. This would include multi-family and other rental units, single family units, and mobile home units.*
- To pursue grants, loans and other housing assistance programs that would seek to improve the quality of housing relative to health and safety issues as well as to increase the percent of local affordable home-owner occupancy primarily in the three boroughs in the Central Slate Belt Region.*

POLICIES RELATED TO HOUSING QUALITY GOALS

Wherever possible, the Central Slate Belt municipalities should work together to establish regulations and to implement these regulations jointly. This cooperative approach should extend to the Slate Belt Council of Government for an even broader based (Slate Belt ten community Council of Governments) regional association of governments.

Background For Following Plan Recommendations- During the Central Slate Belt Region housing and land use condition surveys conducted by the Planners during late 2003 and early 2004, between one (1) to two (2)

percent of the buildings in the Boroughs have obvious exterior defects that could classify those buildings as substandard. Another 10 to 25% of the residential buildings in the Boroughs were in fair condition with a few deficiencies evident from the exterior. It is possible that additional deficiencies exist on the inside of these buildings. The condition of these homes was listed as fair requiring some repair, painting or physical improvements visible from the exterior. Only a handful of buildings including accessory buildings such as garages, barns and storage-shed structures were classified as poor or dilapidated condition requiring demolition or major rehabilitation.

OTHER HOUSING GOALS

- To encourage a mix of housing and business retail and service land uses. This can best be achieved in the Central Slate Belt municipalities' central business districts, however, mixed use areas can also be recreated in the Township in new or redeveloped business districts.*
- To pursue respectful preservation and restoration of buildings that are historic and/or have special architectural style and details.*
- To encourage reversion of single family homes previously converted to apartments. These units represent additional units for family ownership and an opportunity to remove undersized units. Financial incentives and zoning enforcement could assist in re-conversion of these homes and making them available for home ownership. The reversion of these housing units to their original condition will assist in*

the stabilization of older, historic neighborhoods.

- *To link mass transportation services with the higher density housing areas including any age, and particularly 55 and older housing developments.*
- *To pursue stabilization and enhancement of existing neighborhoods through programs such as the Elm Street Program, as is being pursued in Bangor. The program should be extended into neighboring municipalities that are contiguous.*
- *To encourage developers to create separate pedestrian walkways that can connect with regional greenways and/or provide local opportunities for residents to safely walk to recreation areas or just walk for exercise.*

creation of a Central Slate Belt Regional Newsletter Column or page insert for local Borough and Township Newsletters. This newsletter insert can incorporate a number of planning and community improvement related issues. For instance, the newsletter insert could include information about home preservation and enhancement. Information on special County extension courses could also be included in these combination regional/local municipal newsletters. These articles could educate residents on needs for and available resources for the removal of health and safety hazards (*such as asbestos, lead base paint, and radon gas*) in the home. Proper maintenance of residential on-lot sewage disposal systems is another area of information for the regional/local newsletters. Even grant and loan programs available to assist home owners and/or tenants could be published in the newsletter and in the media as well.

HOUSING POLICIES RELATED TO THE OTHER HOUSING GOALS

Most of the Central Slate Belt Region is composed of neighborhoods that cross over municipal lines. This Plan recommends a regional policy to systematically improve the housing on a multi-municipal basis. Priority should be given to the areas with the greatest need. However, any eligible homeowner occupant should also be eligible for health and safety improvement assistance for their home. The implementation of this policy should be established as a partnership between the public sector and the private sector. Private sector partners can include banks, other financial institutions, builders, developers, church and other social improvement organizations.

Education & Proposed Newsletters-
This Regional Plan recommends the

REGIONAL TRANSPORTATION AND CIRCULATION PLAN

GENERAL

This Plan was prepared consistent with the Pennsylvania Municipalities Planning Code, Article III, Comprehensive Plan, section 301 (a) (3), September 2000.

The transportation element of a comprehensive plan should identify how efficiently the existing network performs, identify hazardous conditions and outline an action plan to address deficiencies. The focus of this work element is to:

1. Define the existing transportation network
2. Identify current deficiencies
3. Identify future congested areas
4. Recommend a strategy to address transportation needs consistent with the land use plan

Planning for the development and needed transportation go hand-in-hand because development generates traffic and transportation supports the community's vision. The location and character of transportation help determine the general direction of growth and are factors in the location of residential, commercial and industrial development, as well as community facilities. However, as the Central Slate Belt Region municipalities continue to grow, the role of the transportation system will change and the quality of transportation services will be challenged.

EXISTING NETWORK

Highway Functional Classification- Central Slate Belt Regional streets and roads are functionally classified on the accompanying table and they are further defined and discussed below:

1. Expressways provide connections between major cities and regions. Expressways are generally four-lane limited access highways with posted speeds of 55 or 65 miles per hour.

Expressways in the four Central Slate Belt Municipalities: None

2. Arterials provide access between major parts of counties, cities, towns and other major activity centers. Major Arterials are generally four-lanes, with access points controlled by traffic signals. However, the Arterial roads in the Central Slate Belt Region are not designed or proposed to be four lane highways. They are designed as two lane roads. Posted speeds are generally 35-45 miles per hour, however, some sections may be posted at 55 miles per hour.

Arterials in four Central Slate Belt Municipalities include: Route 191, Route 512, and Route 611.

3. Collectors provide connections between local streets and arterial highways; they provide access for business areas. Collectors are two-lane roads with 35 miles per hour posted speeds. Because collectors often provide the "bridge" between commercial and residential developments, more access points are often found than for arterials but fewer than for Local Streets. Collectors with substantial residential access should be posted at 25 miles per hour. Maintaining safe driving speeds is critical for the safe movement of pedestrians and vehicles.

Collectors in the Central Slate Belt Municipalities include: Ackermanville Road, American Bangor Road, Bangor Junction Road, Broad Street, Broadway, Brodt Road, Bunny Trail, Cedar Road, Dante Street, Delabole Road, East Factoryville Road, Flicksville Road, Fox Gap Avenue, Franklin Hill Road, Garabaldi Avenue, Heinsohn Hill Road, Hester Road, Jacktown Road, Johnson Road, Labar Road, Locke Heights Road, Lower South Main Street, Main Street,

Messinger Street, Mill Road, Martins Creek Road, Molasses Road, Mt. Pleasant Road, North Street, O.W. Road, Palmer Road, Rasely Hill Road, Richmond Belvidere Road, Ridge Road, Rutt Road, Shooktown Road, Slate Belt Boulevard, South Eighth Street, Springfield Drive, Sunset Drive, True Blue Road, Upper North Main Street, West Factoryville Road, West Bangor Road,

4. **Local Streets and Roads** provide direct access to abutting residential properties and channel traffic to other streets. Local roads are generally posted at 25 miles per hour. Maintaining safe driving speeds is critical for the safe movement of pedestrians and vehicles. Traffic calming is critical to protecting neighborhood children and activities.
 - Local Roads in Central Slate Belt Regional Study Area: All remaining streets not already classified as arterial or collector streets.

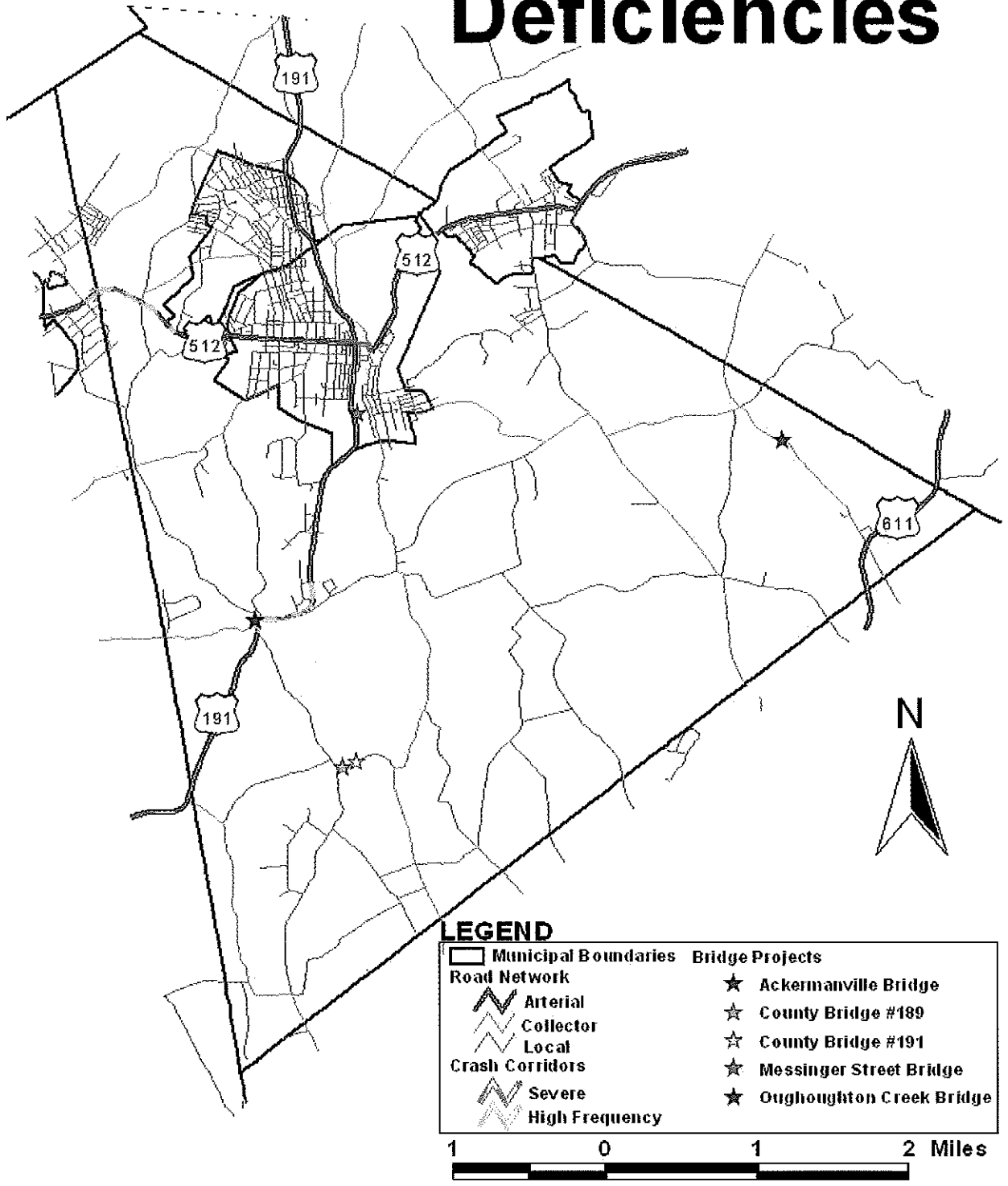
See the table below and the accompanying map (on the following pages) that identify existing conditions and deficiencies from secondary data sources. Three Crash Corridors were identified in the Study Area. Two were high frequency crash corridors, where the number of reportable crashes is higher than the statewide average for similar roads throughout the state. There is also one severe crash corridor, which is a corridor that experiences more than (4) four serious crashes over a five-year period.

Five (5) bridge projects were identified in the Lehigh Valley Transportation Study's (LVTS) Long Range Transportation Plan (LRTP). The LRTP generally establishes the transportation priorities over a 20-year period. It is broken into short, medium and long time periods. The short period time frame is four (4) years and it is the equivalent to the Transportation Improvement Program (TIP). Any project that receives State or Federal funding must be on the TIP. Of the five (5) bridge projects, four (4) are programmed on the TIP. No other transportation projects in the Central Slate Belt municipal area are included in the TIP or the LRTP.

CURRENT DEFICIENCIES

Transportation Table #1 Current Transportation Deficiencies Central Slate Belt Region					
No.	Municipality	Project	Project Type	TIP	LVL RTP
1.	Borough of Bangor	Messinger Street Bridge	Bridge Replacement	Yes	Yes
2.	Township of Washington	Ackermanville Bridge	Bridge Replacement	Yes	Yes
3.	Township of Washington	Oughoughton Creek Bridge	Bridge Replacement	Yes	Yes
4.	Township of Washington	County Bridge #189	Bridge Replacement	Yes	Yes
5.	Township of Washington	County Bridge #191	Bridge Replacement	Yes	Yes
6.	Township of Washington	Ackermanville Road to School Street	High Frequency Crash Corridor	No	No
7.	Township of Washington	Route 512 – Franklin Street to Kennedy Drive	High Frequency Crash Corridor	No	No
8.	Borough of Bangor	4 th Street to North Main Street	Severe Crash Corridor	No	No

Current Deficiencies



Note: This map was financed [in part] by a grant from the Commonwealth of Pennsylvania Department of Community and Economic Development. The map was prepared by Taggart Associates.

PUBLIC TRANSPORTATION

Lehigh and Northampton Transportation Authority (LANTA) provides fixed route bus service and passengers may be picked up anywhere along the route. The Valley Association for Specialized Transportation (METRO PLUS) provides door-to-door service to physically handicapped persons who are unable to use LANTA's fixed route service and other persons requiring special transportation assistance. The High Rise Elderly buildings and major industries also may need public transportation service in the future.

PEDESTRIAN AND BICYCLE FACILITIES

A municipality's pedestrian and bicycle paths should be designed to provide residents the opportunity to move safely about the area by non-motorized means. This valuable transportation resource enables children and adults alike to access education facilities, the community center(s) and neighborhood parks safely without the need for motorized vehicles. The path system should, where practical, be connected to adjacent municipalities. Where possible, the path system should be physically separated from the road system. When it is necessary for pedestrians, bicycles and vehicles to share cartways, extra attention to safety is necessary with cross walks, pedestrian activated signals and cautionary signage.

REGIONAL TRANSPORTATION AND CIRCULATION GOALS & POLICIES

- A. A transportation network that provides for safe and efficient circulation of people and goods within and through the Central Slate Belt Municipalities.**
- B. A roadway network that provides good access to business areas and to areas designated as urban, suburban, and village residential areas.**

- C. A roadway network that seamlessly interconnects the four Central Slate Belt Regional municipalities as if they were all one community.**
- D. A way and means of achieving improvements to the Central Slate Belt Regional Arterial and Collector street systems in regard to improved safety, widenings, alignment improvements, and extensions. (Policy #1- Create an official map for the Central Slate Belt Regional and/or each community within the Region. Policy #2- Create a multi-municipal transportation improvement advocacy sub-committee.)**
- E. A roadway system that efficiently serves proposed business areas with a minimum of impact upon residential areas. (Policy #1- Require business development to help fund improvements to provide them with the shortest, safest connections to the arterial road and/or railroad systems. This could include Tax Increment Financing (TIF) of improvements. TIF financing will permit new businesses to extend their payment for such improvements over an extended time period and permit local governments to partner in that payment process by designating a part of the business property tax payment for the payment of such improvements. Policy #2- Pursue the shortest possible connections between business areas and the arterial system. Policy #3- Seek State and Federal assistance with improved access to business areas.)**
- F. A bikeway and pedestrian walkway system that connects neighborhoods to business areas and to parks and to other public areas of the community by using sidewalks and existing cartways where necessary and separate greenway trails where possible. (Policy- All new developments should provide for pedestrian and bike facilities as part**

of the municipal subdivision and land development requirements)

- G. An accessible transportation system consistent with the American Disabilities Act.
- H. A pedestrian/bikeway system that will provide an alternative to motorized vehicles transportation for short, local trips.
- I. Increased use of the LANTA and METRO PLUS, public transportation systems.

FUTURE CONDITIONS

This Central Slate Belt Regional Plan seeks progress toward the above goals and successful implementation of the recommended transportation policies as a means of helping this region to improve its transportation system, to manage growth, and to support development in the best-suited areas.

This Plan relies upon the LVPC's population and job forecasts as a basic assumption for basic parameters of development for this Central Slate Belt Regional plan.

Overall growth in this Region is expected to be relatively low; therefore major transportation related capacity problems are not anticipated assuming the existing issues identified are addressed.

GENERAL RECOMMENDATIONS

Maintaining the transportation system is an expensive task, LVPC estimates \$225,000 per mile, and building new infrastructure is even more expensive, \$2,500,000 per lane mile according to the LVPC. This Plan does not recommend pursuing major transportation improvement projects like a "Slate Belt Bypass". Large projects, like a bypass are extremely expensive; they negatively impact the environment; and they take an extraordinary amount of time to move through PennDOT's Transportation

Development Process. The lengthy PennDOT environmental review process is not the only reason to discourage a major construction project at this time. A "maintenance first" policy should always be the highest priority in transportation policies.

The availability of Transportation funds is extremely tight. The number of projects exceeds the funding to implement them. For example, the LVL RTP identifies 21 high priority crash corridors. A high priority crash corridor has both frequent and severe crashes. Over the 20-year life of the plan, LVPC estimates that there will be sufficient funding to study all 21 high priority crash corridors and implement safety improvements/ recommendations for about half of the corridors studied. The three (3) crash corridors identified in the study area are not considered high priority crash corridors and therefore they are not programmed to be studied or have improvements implemented during the life of this plan.

Fortunately, the BREW area has a distinct advantage over other municipalities if the area combines its resources and speaks with one voice. A Central Slate Belt Region or Slate Belt COG Transportation Subcommittee should be formed to advocate implementation of Regional transportation improvements. The Subcommittee should be comprised of equal representation from each municipality. Activities of the subcommittee should seek to:

- Strengthen relationship with PennDOT and local legislators.
- Monitor progress of TIP projects and other projects/studies of concern
- Establish priorities for transportation projects
- Coordinate the implementation of studies and projects
- Allocate revenues from impact fee's collected to priority projects and studies

The Slate Belt COG Transportation Subcommittee should develop a

recommendation regarding the designation of highways in the Central Slate Belt Region that should be considered for Billboard control through the PA By-Way Program.

PROJECTS AND STUDIES

1. Implement projects currently on the Lehigh Valley Transportation Study (LVTS) Transportation Improvement Program (TIP)- These include:

- a. Ackermanville Bridge Relocation
- b. County Bridge No. 189
- c. County Bridge No. 191
- d. Messinger Street Bridge
- e. Oughoughton Creek Bridge

There are five (5) bridge projects that are currently programmed on the current FFY 2003-2006 TIP and the Draft FFY 2005-2008 TIP. The Slate Belt Transportation Subcommittee (SBTC) should monitor the programmed projects on a regular basis. The SBTC should meet with their local legislators, Northampton County Officials, and PennDOT District 5-0 regarding the current status of the projects. For details regarding funding and locations of the projects please see Appendix A: FFY 2005-2008 LVTS Draft TIP. Of particular concern, is the progress of the Messinger Street Bridge. The bridge provides access to the Majestic factory, a major employer of the area.

The LVTS technical committee meets monthly. Each month, the Committee receives a status report on highways, bridge or transportation enhancement projects. These meetings are open to the public.

2. Perform necessary traffic studies to address identified crash corridors-

Three crash corridors have been identified within the study area, two (2) High Frequency Crash Corridors and one (1) Severe Crash Corridor. For discussion purposes the Severe Crash

Corridor in this Central Slate Belt Region is the Downtown Bangor Crash Corridor. The two high frequency crash corridors in this Region are: the Ackermanville Crash Corridor and the Eastern Gateway Crash Corridor. The Downtown Bangor Crash Corridor should be the first studied by PennDOT due to the severity of accidents. The Slate Belt Transportation Subcommittee should prioritize study and seek improvements for the remaining crash corridors.

The primary focus of each traffic study should be addressing the associated crash corridor. However, it is important to take a comprehensive approach when examining the impacts of a traffic situation and possible alternatives. Unfortunately, there is no cure-all when dealing with these types of issues. Many times a series of trade-offs are required to find the proper balance.

3. Develop Access Management Policy/Plan - In the Commonwealth of Pennsylvania, local municipalities control land use decisions including local roadway design. Sound land-use decisions and good local road design should be looked at as one of the preventative maintenance options for enhancement of this Region's transportation system. The practice of preventative maintenance techniques on existing transportation infrastructure will increase the overall life expectancy of those facilities and decrease costs over the long haul. Preventative maintenance techniques, like Access Management, are extremely effective in improving safety and efficiency of existing infrastructure. An effective access management plan can actually add capacity to the transportation system while remaining relatively low in cost to implement. See unpublished file documents for more information regarding access management and local roadway design tools.

An Overall Access Management Policy Plan should be developed for the entire multi-municipal area. The overall policy plan should outline design standards, Right-of-Way standards, best management practices for managing access onto the transportation system, and prioritize areas needing to retrofit access management. Access Management increases safety and decreases congestion. It is a relatively low-cost means of improving the transportation system. This Comprehensive Plan recommends that priority be given to implementation of the Access Management Plan beginning in the growth centers.

4. **Investigate Need For An Impact Fee Ordinance** - An Impact fee ordinance could be developed to offset the cost of impacts to the transportation system associated with new development. This study should address all requirements for establishing an Impact Fee Ordinance authorized by Act 209 of 1990. Please see Appendix B for more information.
5. **Create an Official Map** - While no major improvements are recommended at this time, eventually as traffic studies are completed and improvement plans are developed, an official map will be helpful in accomplishing the future improvements. The official map should also show Access Management improvements from the aforementioned study.

FUNDING

PennDOT's Project Development Process is long and cumbersome (See Appendix). However, if a municipality is willing to invest some money upfront this process can move faster. Working closely with PennDOT, the Slate Belt Transportation Subcommittee should take the lead on projects at least through the Preliminary Design Phase, which includes all of the feasibility studies. PennDOT is more likely

to fund a project if the municipality is willing to invest its own funds in the planning and design of the project.

RECOMMENDATIONS FOR WASHINGTON TOWNSHIP CIRCULATION IN COORDINATION WITH LAND USE

The overall Central Slate Belt road system resembles a spoke and hub system. The major spokes are PA State Route (SR) 512 and SR 191. SR 712, South Main Street, is another spoke road. The hub is in downtown Bangor. It includes Broadway, Main, Market and First streets.

As the population of the Central Slate Belt Region increases and related business traffic increases, there is an increasing likelihood that downtown Bangor will become more congested with an increase of accidents and delays. This potential problem could be reduced somewhat if some of the through traffic on this radial-spoke system could safely move from one radial-spoke to another primarily in Washington Township. This would permit vehicular traffic to "connect" from one spoke road to another without having to travel all the way into Bangor or Roseto to make the desired connection.

Recommend Improvement to Existing Connector System of Collector Roads-

This Traffic Circulation Plan proposes that certain existing roads primarily located in Washington Township be improved so that they will be safer to use as they continue to be used by more vehicles as connector roads. The overall pattern of major State arterial roads is radial in design, if downtown Bangor is used as the center point of reference. Since there are no circumferential roads that connect the radial roads, local people find it more convenient to use existing collector roads as connectors (*from one arterial such as SR 191 via N. Bangor Road to SR 512*) to by-pass the major development of the Boroughs. This Central Slate Belt Regional Transportation Plan seeks to make these connector roads safer, but not to make them major thoroughfares by signing them as a part of a major road system.

Therefore, the approach is low key and focuses on safety and access management rather than widening, and increasing the drivable speeds on these connector roads. In the future, the local municipalities may want to consider some traffic calming techniques to reduce the traffic speeds on these connector roads to further insure their safe use.

The Connector Roadway System is proposed to include the following roads & streets:

- W. Bangor Road,
- O. W. Road,
- Flicksville Road,
- Springfield Road,
- Lock Heights Road,
- Broad Street, and
- Fox Gap Road.

These Connector System Roads should be improved to the standards of a collector street (as per the Washington Township Subdivision and Land Development Ordinance) in terms of roadway width. The number of new access roads and driveways connecting to these roads should be minimized so that there are fewer potential accident points and less delay from traffic entering and leaving these roads. Any poor roadway geometry should be improved, such as poor intersection design (“+” intersections or 90 degree angle “T” intersections are best), optimum clear sight distances should be maintained at all intersections of these roadways, intersecting streets should have the stop signs, steep grades and sharp curves should be reduced so that the grades and curves are less hazardous, but not so smooth that they will be attractive to become a major speedway. Inside the connector system, the collector and local streets should be enhanced as part of a general grid system of streets. This system of roads and streets will enhance the residential and business environment within the connector system.

It should complement the areas proposed for urban-suburban-village development.

Outside the connector road system, road improvements should be limited to improvements required for safety and reduction of high crash area problems.

An exception to the above recommendation occurs at the western side of the connector system at the intersection of the Connector and Pennsylvania State Route 512. This area currently has a variety of businesses on the inside of the Connector system and on the outside toward Pen Argyl into Plainfield Township. This business area will very likely continue to attract most of the business potential for the Central Slate Belt Region. This corridor should be a top priority for the Transportation and Traffic Subcommittee to study and plan improvements. A “Specific Plan” should be created to not only make this corridor safer with minimal congestion, but streetscape beautification improvements should also be included as a priority for the Plan. Beautification including landscaping, signage and building appearance could be a point of pride for the Region at this important Western entranceway into the Central Slate Belt Area.

Signage and an information plaza should be developed in this entrance corridor to link this prosperous business district with the other business districts of this Central Slate Belt Region. The strength and heritage of each of the business districts could be presented at this gateway on one or more tastefully designed billboards and on a special sign and information plaza. If there is enough space and community support, a special parking area could be developed in the information plaza to permit bicyclist visitors to park their vehicle and then begin a bicycle tour of the Central Slate Belt Region visiting each of the business districts and other historic and scenic points of interest.

TRANSPORTATION ACTION PLAN

- ◆ **Immediate Actions (Less than 1 year)**
 - Form Multi-municipal transportation subcommittee
 - Transportation subcommittee meet with State and County elected officials and PennDOT District 5-0 regarding status of TIP projects
 - Request bi-monthly or quarterly meeting with PennDOT District 5-0 for status report on TIP projects.
 - Prioritize recommended studies
- ◆ **Intermediate Action Items (1-5 Years)**
 - Perform Recommended Traffic Studies
 - Downtown Bangor Traffic Study
 - Eastern Gateway Traffic Study, Bangor
 - Ackermanville Traffic Study
 - Consider Traffic Impact Fee Ordinance
 - Prepare Overall Access Management Policy/Plan
 - Ackermanville Bridge
 - County Bridge No. 189
 - County Bridge No. 191
 - Messinger Street Bridge
- ◆ **Long Term (5 + Years)**
 - Implement findings for:
 - Downtown Bangor Traffic Study
 - Eastern Gateway Traffic Study, Bangor
 - Ackermanville Traffic Study
 - Access Management Study

Summary of Transportation Recommendations (from published and unpublished file documents)

1. Recommendations to improve access and interconnections to all parts of the Multi-municipal area proposed for future development. *(This Regional Comprehensive Plan does not recommend any major improvements. The existing network is sufficient for future growth except for traffic controls and access management.)*
2. **Recommendations to improve the safety and operation of the street system including re-alignments, studies for traffic control etc.**

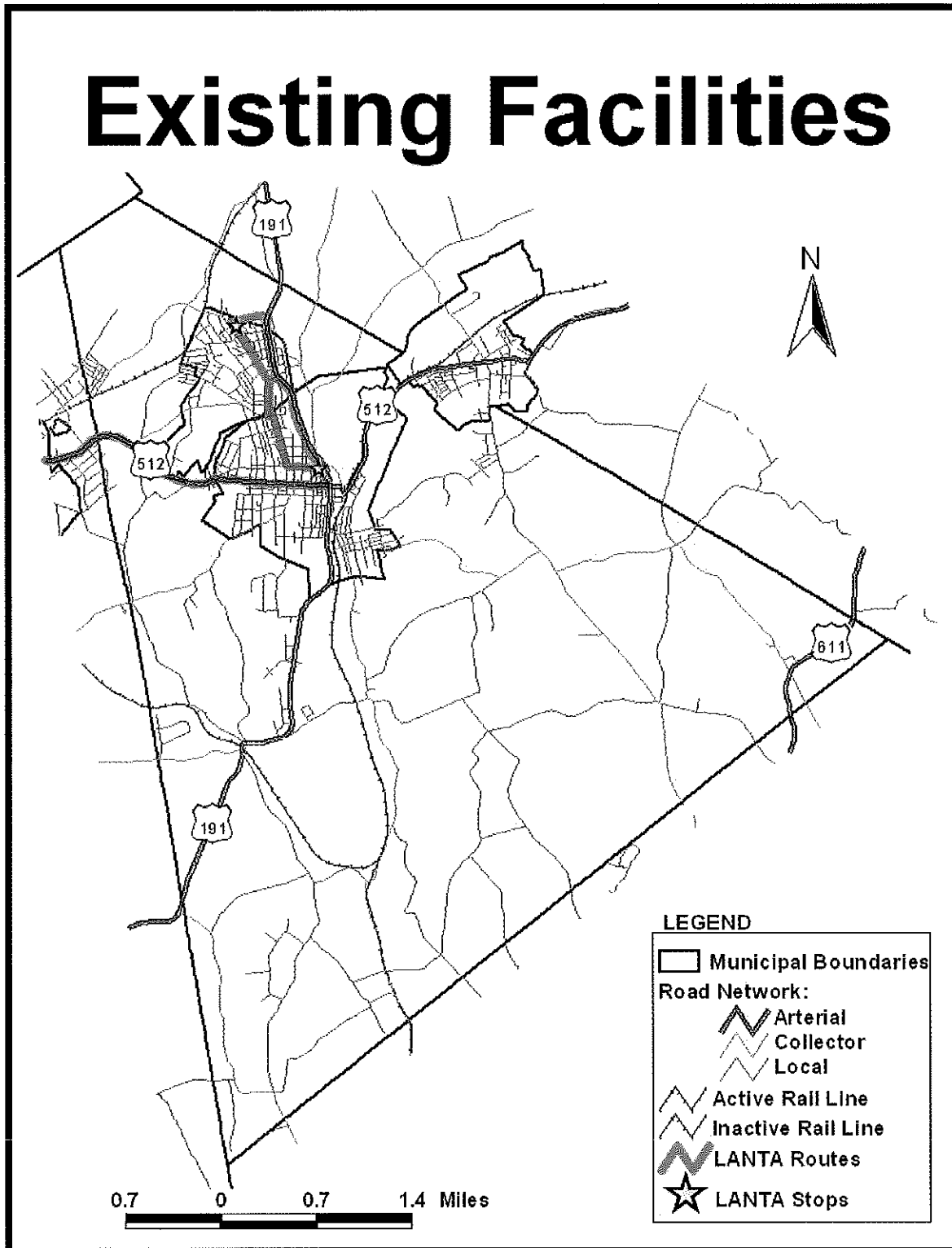
- Two (2) high frequency crash corridors and one (1) severe crash corridor have been identified within the study area. A traffic study for each corridor should be performed to find solutions that address the safety issues.
3. **Recommendations to deal with one-way streets and traffic calming.**
 - More analysis is needed to determine the need for one-way streets and traffic calming measures. The use of one-way streets and traffic calming measures should be examined as part of a Downtown Bangor Traffic Study.
 4. **Generalized recommendations for off-street parking concepts.**
 - The boroughs should consider acquiring properties as opportunities arise for conversion into off-street parking.
 5. **General recommendations for mass transit and walkway corridors.**
 - LANTA currently serves the area with two posted stops, one in Bangor and one in Roseto. This Plan recommends working with LANTA to add at least one more posted stop at a major employment center in addition to the LANTA policy of stopping anywhere along their route between posted stops.
 - Walkway corridor recommendations will be addressed as part of the recreation plan.
 6. **List of highway improvement projects and procedure to fund them.**
 - This Plan recommends implementing the projects programmed in LVTS's TIP
 - Ackermanville Bridge
 - County Bridge No. 189
 - County Bridge No. 191
 - Messinger Street Bridge

7. Recommendations for speed limit studies and traffic impact fee studies, and any other follow-up studies.

- Downtown Bangor Traffic Study
- Western Gateway of Bangor Traffic study

- Ackermanville Traffic Study
- Traffic Impact Fee Study
- Access Management Policy Study

Existing Facilities



REGIONAL COMMUNITY FACILITIES AND UTILITIES PLAN

COMMUNITY UTILITIES SEWAGE DISPOSAL, WATER, STORMWATER

The availability of centralized water and sewerage utilities is important in this Central Slate Belt Regional Plan for the following reasons:

- The protection of human health.
- The preservation of environmental qualities.
- An incentive for economic development and creation of local jobs.
- An opportunity to influence the location and intensity of housing and other land use development.

Although the availability, capacity, and cost of public utilities are very powerful as a community building and preservation tool, our plan places this Public Utility Plan element last in the three major components of the Central Slate Belt Regional Plan after the Land Use Plan and the Transportation Plan elements. This regional plan first establishes a set of cultural, economic, and environmentally influenced land use goals and then seeks to have transportation and community utility policies organized to help carry out those goals.

This Central Slate Belt Regional Comprehensive Plan for 2005 to 2030 puts forth the following goals related to community utilities:

SANITARY SEWER PLAN GOAL

- ✘ To seek economical, efficient sewage collection and disposal for existing areas of urban development, areas nearby to

existing service areas that have failing on-lot sewerage systems even if they are low density, and finally areas designated for future urban development in this plan, but no sewerage service is proposed for areas designated for farmland preservation, open space protection, and environmental preservation areas.

POLICIES

- Urban development should locate in areas where the public sewer system can accept additional growth, either at present or through limited expansion and upgrading, consistent with the Comprehensive Plan recommendations for urban development. *(Note: Public sewerage service may include publicly owned collection of sewage, sewage treatment in innovative ways and spray irrigation of the clean effluent in field or forest areas)*
- Urban development should be discouraged in areas where it can only be served by on-site sewage disposal systems. This plan does not recommend the creation of new sewerage systems or the extension of existing sewerage systems into areas that are recommended for farmland preservation, watershed protection, or open space protection.

SANITARY SEWER PLAN GOAL

- ✘ To require environmentally sound sewage disposal for all persons, businesses, and other human activity within the Central Slate Belt Region.

POLICIES

- Tested primary and replacement absorption areas should be provided for

each lot proposed for on-site sewage disposal.

- Adequate up-to-date Municipal Official Sewage Plans should be created and be maintained consistent with Act 537 - the PA Sewage Facilities Act of 1966.
- Areas with malfunctioning on-lot sewage disposal systems or malfunctioning central systems should be provided with adequate sewage disposal. The most cost-effective solution to the problems should be implemented after an evaluation of appropriate alternatives.

WATER SUPPLY PLAN

The Central Slate Belt Planning Region includes two Community Water Systems:

- Public System owned and operated by the East Bangor Municipal Authority.
- Private System owned and operated by the Pennsylvania American Water Company.

In addition to the Community Water Systems, there are private on-lot water systems that serve properties primarily in Washington Township.

Direct local government control over the quality and quantity of potable (*suitable for drinking*) water is minimal. Local Central Slate Belt Regional municipalities should require that minimum health and safety standards for potable water be included in the initial development. However, the monitoring, supervision and enforcement of water quality standards after development takes place is the responsibility of higher authorities such as the PA Public Utilities Commission and the PA Department of Environmental Protection.

Since all of these water systems rely upon subsurface water, rainwater recharge of the subsurface aquifers, and surface water recharge of the subsurface aquifers, the municipalities do have an

indirect involvement in the protection of water quality and quantity available for public consumption. The municipal Land Use Plan element of the Regional/ local Comprehensive Plan and the Municipal Zoning Ordinance are municipal opportunities to help assure safe potable water supplies.

This Central Slate Belt Regional Plan seeks to assure that there is a safe, reliable water supply. Preservation of major community water system watershed areas in open space and forest use, as recommended in the Regional Comprehensive Plan, is an important part of this Regional Plan.

This Central Slate Belt Regional Plan is also concerned about the safety of water supply sources, water storage, and water conveyance systems. As a result of heightened security threats, this plan encourages the two Community Water System suppliers to create and implement emergency plans that would respond to natural and human adverse impacts upon these local water systems.

Since on-lot water supply is an important means of supplying potable water in the Township part of this region, the protection of well water quality is of great importance for this plan. As a result, this plan recommends that Washington Township continue to adopt the latest well head protection regulations as they become available from the Lehigh Valley Planning Commission and that those regulations be enforced.

WATER PLAN GOAL

GOAL

- ✘ To coordinate economical, efficient Community Water Systems, water services with existing land use and the Central Slate Belt Regional recommended future development.

POLICIES

- Urban development should locate where the existing community water system can accept additional growth, either at present or through limited expansion and upgrading, in areas where the Comprehensive Plan recommends urban development.
- Urban development should be discouraged in areas where it can only be served by on-site water systems or new central water facilities unless such areas are identified on the Central Slate Belt Regional Comprehensive Plan for future urban type development.
- Urban development in areas recommended for rural development in the Comprehensive Plan may be served by existing or expanded publicly-owned central water facilities under the following conditions:
 1. The area is clearly defined for urban development and water service in the municipal comprehensive plan and zoning ordinance;
 2. The defined urban area is a limited and contiguous expansion to the existing service area; and
 3. The municipal zoning ordinance is effective at steering urban land uses to the defined area and otherwise preserving agriculture or open space. LVPC standards and guidelines should be considered in any expansion of water services into areas beyond contiguous expansion of existing service areas.
- Where municipal water service is not available and the Township seeks to assure that on-lot water supplies are potable and safe to consume, the Township should require from the homeowner water quantity test results for each on-lot system prior to the issuance of an occupancy permit. *(Well drillers are already required to submit water quality samples to the PA-DEP)*

STORMWATER MANAGEMENT PLAN

The Central Slate Belt Region is primarily located in the Martins Creek Watershed (about two thirds of area). About one fourth of the Planning Area is in the Oughoughton Creek Watershed and the remaining approximately 10 percent of the Planning Area is in the Mud Run Watershed. Since the Planning Area is in the foothills of the Blue Mountain, these watersheds are near their headwaters. The impact of heavy rainfall is much quicker (shorter warning time) in headwater streams and their valleys than downstream. There isn't as much time to react and prepare for a storm water runoff or a flood event in headwater stream areas as there is in the lower reaches of these watersheds. As a result, the hazards to property and life are somewhat different in that there is not as much time to prepare. The best preparation is in the planning of land development and the management of ground cover in open space areas and along stream corridors.

As recently as 2004, Hurricane Ivan brought a large amount of rainfall. It caused a very rapid build up of storm water runoff causing significant flooding in various parts of the Slate Belt Area.

STORMWATER MANAGEMENT GOALS

- ✘ To establish an intercommunity storm water cooperative approach to manage the rate, volume and quality of storm water runoff for protection of public safety and welfare, property and the environment.
- ✘ To study ways and means for the mitigation of existing storm water runoff problems in the Martins Creek Watershed in each of the Central Slate Belt Municipalities.
- ✘ To implement solutions for the existing storm water problems through intercommunity cooperation.

This Plan embraces the LVPC storm water management policies.

STORMWATER MANAGEMENT POLICIES

- Storm water problems should be identified in more detail on a watershed basis through inter-municipal cooperation in the planning and the plan implementation.
- This Plan also recommends that the Slate Belt COG seek a Growing Greener project to reduce the storm water runoff from Washington Township into Bangor Borough and the northern sections of Roseto Borough (*and related sections of Washington Township and Bangor Borough*) thereby mitigating future flood hazards.

SOLID WASTE

Solid waste management is becoming a very expensive service for the residents of the Central Slate Belt Planning Area. In the long range, research needs to be conducted into ways and means for reducing the amount and cost of waste disposal. In the meantime, the primary way to reduce costs is to increase the amount of solid waste that is recycled and reduce the stream of materials that is conveyed to the land fills.

Disposal of leaves, grass, tree, and yard waste is an area that the newly formed Slate Belt Region Council of Governments decided to study. Their plan is to identify ways and means by which these yard waste products could be recycled through composting via an inter-municipal program.

The Commonwealth of Pennsylvania provides incentive grants for recycling of waste materials. The larger grants go to those communities that achieve the highest rate of recycling. Therefore, there are financial incentives for recycling in addition to the obvious

benefit of longer lasting land fills. The individual citizen's waste disposal bills could be less as a result of the reduction in waste taken to the curb for disposal.

SOLID WASTE GOALS

- ✘ To initiate a successful leaf, grass, and yard waste disposal program through the Slate Belt Council of Governments.
- ✘ To substantially increase (*50% increase*) the amount of solid waste that is recycled in the Central Slate Belt Region.

SOLID WASTE POLICIES

- The Slate Belt Area Council of Governments should formulate a program to increase recycling and to create a new leaf and yard waste recycling program.
- The waste disposal companies serving this area should provide the municipalities with the tonnage of waste recycled each quarter. This would serve as a basis for progress toward achievement of the recycling goal.
- The Slate Belt Area Council of Governments could consider negotiating one solid waste disposal service contract for all Slate Belt COG municipalities.

PARKS AND RECREATION PLAN

Each of the four Central Slate Belt Municipalities contains a community-wide park. The newest of these is in Washington Township. In-fact, Washington Township is currently in the process of developing a master community park plan for additional recreational facilities at their Township Park that is located to the rear of the Washington Township Municipal Building located on S.R. 191 just south of the village of Ackermanville.

The Borough of Roseto has a centrally located park that contains a baseball field, basketball court, children's play apparatus area and a picnic pavilion. Roseto also has a mini-park along Columbus near Garabaldi Avenue. East Bangor has a similar set of facilities. East Bangor is currently in the process of upgrading the play equipment at the Reimer Memorial Community-wide Park. The Borough of Bangor has the largest, local municipal park. It includes a swimming pool and stadium in addition to a variety of play apparatus and other recreation facilities. Special features at the Bangor Memorial Park include a small train ride, a basketball court, a little league ball field, other fields and a group of volley ball courts, most of which are lighted for night use.

A spirit of inter-community cooperation exists and could be nurtured further in the area of recreation planning. *(i.e. Washington Township has contributed funds to Bangor so that Township residents may use the swimming pool at reduced rates.)*

RECREATION PLAN GOAL

Current municipal parks appear to meet the needs in each municipality. However, a more detailed study is recommended with emphasis on use trends of existing facilities, projection of needs based on anticipated regional population projections, and the potential of planning for special recreational needs on an inter-municipal basis. The major recreation goal therefore is as follows:

- ***To Prepare a Central Slate Belt Regional Park and Recreation Plan based on a detailed study of current and projected needs.***
 - Policy #1 – Agree to pursue a grant to retain a recreation program intern to coordinate inter-municipal recreation facility scheduling of

fields and facilities and to establish a projected need for facilities.

- Policy #2 – Actively participate in the Lehigh Valley Planning Commission Greenway – Walkway study and plan. Seek to interconnect future Greenways and to include the Flory Dam Property between the Boroughs of Bangor and Roseto as a link in that system.
- Policy #3 – Pursue a grant to prepare a Regional Recreation Plan based on the results and outcomes from the above two policies. The Regional Plan ought to consider the need for a regional indoor recreational facility, regional playfields, and neighborhood – district facilities that serve districts that extend from one municipal neighborhood into the adjacent municipality.
- Policy #4 – Annually evaluate and upgrade the safety of all public recreation facilities. Correct identified problems immediately.
- Policy #5 – Seek public-private partnerships with regard to the creation, operation, and maintenance of recreation facilities.

OPEN SPACE AND SCENIC RESOURCES

State Route 191 is a scenic highway that is not officially designated in recognition of its scenic assets. S.R. 191 crosses the Appalachian Trail to the north of the Central Slate Belt Regional Planning Area. As it descends into the Planning Area from the crest of the Blue Mountain, the views from this roadway can be very inspiring. Then S.R. 191 passes through the Boroughs of Roseto, Bangor and the Township of Washington with many additional special views.

OPEN SPACE GOALS

- ✘ **To preserve open space and important natural areas** (as identified earlier in the Preservation Plan section of this Chapter and as identified in Chapter Three in the National Inventory Site study.)
- ✘ **To create an interconnected open space and green-way system that links all four Central Slate Belt Municipalities with walking and/or bicycling trails.**

CENTRAL SLATE BELT REGIONAL PUBLIC BUILDINGS, SERVICES, AND PUBLIC WORKS PLAN

Government Center Building Recommendations

The Borough of Bangor provides municipal services from the Bee Hive Community Center Building located on Pennsylvania Avenue and with frontage on North First Street (S. R. 191). The Borough Manager, Borough Secretary, Borough Code Enforcement Officer and office clerk are located in this municipal building. Borough Council meets (generally two times each month) in this building. This building has a small kitchen facility and its large “hall type” room and basement are actively used for indoor recreational activities. The Bangor Borough Police Department is located almost two blocks to the south in the “Old Town Hall” that is now known as the Slate Belt Heritage Center. It fronts on North First Street just north of Market Street. Neither of these buildings is well suited for its general government and police purposes. This Plan recommends that one new or better suited existing building should be provided for these functions during the Central Slate Belt Regional planning time period. (2005 to 2030). The size and location of the new facility should be based on a space use analysis and projection of future local government service needs. Life cycle energy and maintenance costs should be an important

factor in the selection of a new building. Ideally, a site near the downtown should be selected.

Bangor owns and operates several other buildings including three fire station houses, a public library and a street department garage. Both the Library and Public Works Building have structural and energy conservation problems. Both the public library and the street department garage functions should be carefully reevaluated in light of the Borough’s involvement with the regional Council of Governments. One or parts of both of these functions could be shared (or more fully shared – in the case of the historic library facility) by other Slate Belt Region Municipalities. Further study and analysis of the success of inter-community cooperation through the COG will need to take place before a final determination is made regarding the ultimate future need for these two government functions and the buildings that house them.

The Borough of Roseto owns and operates three public buildings. One is a multi-use Borough Hall and Fire Station that fronts on Garibaldi Avenue and Chestnut Street. This building is in sound condition, has good access, and serves the public well in terms of access via the relatively new elevator to the second floor, however, it may need to be further improved during the time-line of this Comprehensive Plan. It would be more convenient to have the existing restroom facilities on the top floor made handicapped accessible. It would also be more convenient to have more off-street parking with an appropriate number of handicapped parking spaces included. This municipal building has excellent kitchen facilities for in-house or catering food preparation. The second building is a police headquarter building at the corner of Roseto Avenue and North First Street (S.R. 191). This building is well located, but it is very small. It has no off-street parking. It should continue in service until a change in local and/regional police service decisions are

implemented. The third Roseto building is a Public Works Building located in Washington Township just north of the Borough relatively close to S. R. 191 and accessible from Shooktown Road. The main garage building is generally suitable for its intended use, however, the salt and cinder storage structure has been less than adequate.

Regionalization of some of the garage and equipment storage function should be evaluated in light of the potential for creation of one or more regional public works facilities within the greater Slate Belt COG region.

The Borough of East Bangor owns three municipal buildings. The East Bangor Volunteer Fire Company actually operates and maintains the old school house on Central Avenue where the Borough Council holds its meetings. Adjacent to the old school house the volunteers constructed a fire station to house their fire equipment. Both buildings are generally acceptable for continued service; However, repairs to the roof, heating, air conditioning, and kitchen facilities should be scheduled over the next 25 years (2005 to 2030) of this planning program. The Borough Police Station is located in a small building on Central Avenue to the west of the Fire Station House. The police station is small, but has a good location near the center of town and along the major thoroughfare, S.R. 512. The future of this station house will depend on the nature and extent of regionalization of police service in the future. The Slate Belt COG is currently pursuing a regional police service grant and study.

The Township of Washington owns and operates two building complexes. The first is the Township Municipal Complex located south of Ackermanville with frontage on S.R. 191. This is a new building that houses Township municipal offices, the Township Police offices, the meeting room for Township Supervisors meetings, and it also accommodates other Township and regional meetings. It is well designed

with adequate interior and exterior facilities such as parking which includes handicapped parking spaces. The second building complex is located north of Ackermanville with frontage on Flicksville Road a short distance from S.R. 191. It contains three buildings. The smallest is the old Township meeting and office building. The second building is a metal side and roof Road Department building. It is very well maintained as is the fine equipment stored therein. However, additional storage and repair space will be required as the Township population and development increase. The Third building in this complex is an old wooden barn structure. Some Road Department equipment is stored in this building.

This plan recommends that a special space needs and building site evaluation be conducted to determine whether this Washington Township existing public works complex will be able to serve the future needs. That study should also evaluate alternate locations for a new public works complex. This should include land on and adjacent to the new Washington Township Municipal Building and Park complex. It could also include shared public works facilities with the adjacent municipalities. Based on that study, a decision should be made as to which buildings should remain at this site and which should be raised. If the barn is slated for removal, the structural elements could be preserved and sold to someone who might rebuild it on another site. If the current public works complex is not suitable for use as a future public works complex, then its use for other public purposes should be evaluated. Central Slate Belt Municipal police headquarters could be one of the reuse alternatives considered.

The volunteer fire company owns and operates its own fire station located south of Ackermanville fronting on the west side of S. R. 191 just north of the new Municipal Complex.

Police Service Recommendations

Cooperate with the Slate Belt Regional Council of Governments to study and plan for regional police service for the Slate Belt Region. This study should lay out the options for regionalization that could include combining the existing police forces of Bangor, Roseto, East Bangor and Washington Township. If such an option is feasible, then this Regional Comprehensive Plan recommends that the recommendations be implemented. If some other form of cooperation is recommended or partial regionalization, this plan would support that option as well.

Fire Service Recommendations

Municipal fire service is provided by volunteer fire persons. It has been increasingly difficult to attract the number of volunteers that have sustained the local fire departments 10 or 20 years ago when the regional population was lower and the subdivisions in Washington Township were closer in to the Boroughs.

This Regional Comprehensive Plan recommends that all of the municipalities within this region locally (or regionally) administer the Uniform Construction Code and adopt the International Property Maintenance Code in order to preserve and enhance the safety and quality of local housing. In that way, the number and severity of fires can be reduced. Fire service should also seek the objective of being able to reach all developed properties in this region within six (6) to 10 minutes of receiving a call for fire fighting service. In the future, this could result in changing some of the fire department locations, or improving access to areas that are difficult to service with existing roadways. Inter-connecting subdivision street systems may be desirable in order to improve fire service access. Impediments to fire service access should be evaluated every three to five years based on the record of fires.

Emergency management should be coordinated between Central Slate Belt Regional Municipalities and with the other municipalities that make up the Slate Belt Area Council of Governments. Emergency shelters should be established and identified to the public as safe places to go if there is a power outage, hurricane, flood or other disaster or terrorist attack. These shelters should have their own power generators, communication systems, and safe areas if there is contamination in the area resulting from natural or other sources.

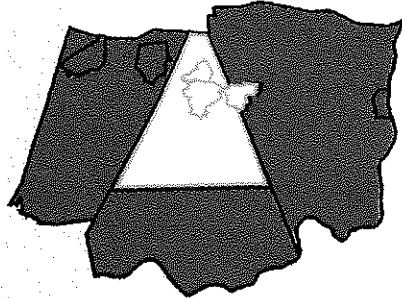
With the various efforts to provide efficient, cost effective service in part through regionalization, local identity should be preserved through the heritage center and other local community based signs, activities and newsletters. As an increasing number of local residents enter their retirement years, this corps of people could be encouraged to participate in community restoration and action programs to remember the past, the heritage of each community and help to celebrate that heritage with many local community events and neighborhood gatherings. This celebration of local places can be a means for old and young people to work together for restoration and community rebuilding.

INTER-MUNICIPAL CONSOLIDATION

This Central Slate Belt Regional Plan recommends that the local municipalities consider consolidating at some time during the next 25 year period. Consideration of this option would be enhanced if the Commonwealth of Pennsylvania provides for consolidation through a "Home Rule Charter" where special consideration would be given to representation, retention of community identity, and other issues of local importance.

Local Comprehensive Plan Sections

Central Slate Belt Region



CHAPTER TWO OF WASHINGTON TOWNSHIP COMPREHENSIVE PLAN

Boroughs of Bangor, Roseto,
East Bangor, Township of Washington
in County of Northampton, Pennsylvania

Washington Township Summary of Community Attitude Survey - Page 43

Growth Trends and Forecasts - Page 44

Natural Resources Plan - Page 47

Farmland Preservation - Page 55

Land Use Plan - Page 58

Transportation/Circulation Plan - Page 68

Community Facilities and Public Utilities Plan - Page 86

Energy Conservation and Energy Generation Plans - Page 97

Statement of Plan Interrelationships - Page 99

This report was financed, in part, by a grant from the Pennsylvania Department of Community and Economic Development under the Land Use Technical Assistance Planning Program. This program is part of a Multi-municipal Planning Program including the Boroughs of Bangor, East Bangor, Roseto and the Township of Washington.

Township of Washington Planning Commission

Rodite & Pandl, LLC, Community Planners

Comprehensive Plan Planning Chart for Central Slate Belt Region

Boroughs of Bangor, Roseto, East Bangor, and Township of Washington, Northampton County, PA 2004

Lehigh Valley Comprehensive Plan Lehigh and Northampton Counties, PA	Central Slate Belt Region Plan Boroughs of Bangor, Roseto, East Bangor, and Township of Washington (also referred to as the BREW Region) This Section Focuses On Washington Township																																																																												
<p style="text-align: center;">PUBLIC INPUT FOR THE COMPREHENSIVE PLAN UPDATE</p> <p>PUBLIC OPINION LAND USE SURVEY "The Lehigh Valley Planning Commission (LVPC) has learned that one of the best ways to obtain useful information about citizen opinions concerning planning issues is to conduct a survey of a sizeable number — 3,500 to 4,000 — of Lehigh Valley residents. This method, involving a mail-out mail-back survey, was used successfully by the Commission in 1974 and 1988..... A Public Opinion Land Use Survey was undertaken in February 1999 as part of this update to the Comprehensive Plan. The 1999 Public Opinion Land Use Survey was mailed to 4,000 registered voters. This represented 1.25% of all registered voters in the Lehigh Valley. A total of 1,078 surveys were returned for processing. This resulted in a 27% return rate which is good for a lengthy survey..."</p> <p>A summary of the major findings follows:</p> <ul style="list-style-type: none"> ● The three most important planning issues are the preservation of farmland, the preservation of environmentally sensitive areas, and the re-newel of the cities. ● Nearly 59% of the persons who answered the survey want slower growth in the Lehigh Valley. Only 2.5% want faster growth. ● The three most significant consequences of growth are felt to be: increasing traffic congestion, loss of open space, and overcrowding in schools. ● The three factors people consider most important in choosing a place to live are: good schools, low taxes, and pleasant residential areas. ● There is a strong mandate by registered voters to preserve farmland. 	<p>Washington Township conducted a planning issues community attitude survey in 2003. Questions from the survey are summarized in the left column and percent responses in the right columns. Approximately 27% of the Washington Township households responded. (the number of households that responded to each question varied from 429 to 445)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Washington Township Community Attitude assessment issue identified in 2003 Questionnaire (sent to every home)</th> <th style="width: 10%;">Strong Feeling %</th> <th style="width: 10%;">Moderate To Strong Feeling %</th> <th style="width: 10%;">Total Strong & Moderate %</th> </tr> </thead> <tbody> <tr> <td>a. Need to manage the speed of land development in Washington Township - yes</td> <td style="text-align: center;">70%</td> <td style="text-align: center;">24%</td> <td style="text-align: center;">94%</td> </tr> <tr> <td>b. 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Lehigh Valley Comprehensive Plan
Lehigh and Northampton Counties, PA
 (This column includes selected quotes from
 the Lehigh Valley Comprehensive Plan ... 2030)

GROWTH TRENDS AND FORECASTS

"Any forecast of future growth is somewhat speculative. There can be no guarantees that the Lehigh Valley and its parts will grow exactly as indicated here even though the LVPC has used a demographic model that accounts for future migration, births and deaths at the county level and data on local development, land resources, and available infrastructure for the municipal forecasts. The forecasts presented here are not recommendations for future growth by the LVPC. If these forecasts come about, they will present both problems and opportunities. Succeeding sections of the plan outline how to resolve some of the problems and capitalize on some of the opportunities."

REGIONAL POPULATION GROWTH

"Future population growth in the Lehigh Valley will depend on migration. Based upon past experience, most of this growth will come from westward expansion of metropolitan areas in New Jersey and New York...The Philadelphia area is a secondary source of immigration..."

Between 2000 and 2030 migration is forecast to account for an increase of 113,000 people in the Lehigh Valley. Sixty-seven % (76,000) are forecast to locate in Northampton County. Unless there are unexpected increases in family size, natural increase in population is not expected to account for much future population growth. Without migration, population would eventually decline.

...If past trends in migration, births and deaths continue, the Lehigh Valley will grow by 22% between 2000 and 2030. The population of the Lehigh Valley will grow from 579,000 in 2000 to 704,000 in 2030. Northampton County is expected to grow 28% compared with 16% in Lehigh County.

...Lehigh and Northampton grew faster than Pennsylvania, but slower than the nation. Many Pennsylvania counties have experienced negative growth or no growth. However, this is not the case in southeastern Pennsylvania and in counties bordering the Delaware River. Southeastern Pennsylvania counties have grown faster than Lehigh and Northampton. In the cases of Monroe and Pike counties growth due to migration from New Jersey and New York has been extraordinary. Growth in the Lehigh Valley is a function of its location relative to New York, New Jersey and Philadelphia more than any other factors.

POPULATION CHARACTERISTICS

Between 2000 and 2030 there will be important changes in the population of age groups... dramatic growth in the number of people over 65, relatively little change in the number of people 30 to 54 and modest growth in people under 30. The population over 65 will grow by about 62% during this time period..."

Central Slate Belt Region Plan
 Boroughs of Bangor, Roseto, East Bangor, and
 Township of Washington (FOCUS ON
 WASHINGTON TOWNSHIP)

GROWTH TRENDS AND FORECASTS

The population, household, and land development forecasts for the BREW Regional Communities are presented in the following tables:

**Central Slate Belt Region –
 Population Forecast LVPC**

	2000	2030	Change
Bangor	5,319	5,508	189
Roseto	1,653	1,653	0
East Bangor	979	1,103	124
Washington	4,152	6,855	2,703
Total	12,103	15,119	3,016

**Central Slate Belt Region –
 Household Forecast**

	2000	2030	Change
Bangor	2,105	2,285	180
Roseto	640	671	31
East Bangor	387	457	70
Washington	1,601	2,780	1,179
Total	4,733	6,193	1,460

**Central Slate Belt Region – Land
 Use Forecast of Developed Acres**

	2001	2030	Change
Bangor	815	855	40
Roseto	283	290	7
East Bangor	298	323	25
Washington	3,452	5,130	1,678
Total	4,848	6,598	1,750

GENERAL GROWTH GOALS

This Central following over-arching goals:
Slate Belt Regional Plan envisions an inter-municipal cooperative approach to guiding land development in the Central Slate Belt Region-

◆ ***To seek preservation of open***

"There is robust growth in health industries in the Lehigh Valley and elsewhere. Various types of housing development aimed at older citizens and those with special living care needs are increasing. These are activities that directly relate to land use issues in both urban and rural places.

The most rapid growth in the transit market is specialized transit that takes passengers from door to door. Planners recommend locations close to urban areas when citing health services, housing and convenience facilities serving elderly citizens. Such locations reduce the need for long trips and increase the number of sites that can be reached by transit service. Many of the impacts of a growing elderly population cannot be easily anticipated because they have not been experienced. The only certainty is that there will be major changes in the coming years.

MUNICIPAL POPULATION GROWTH

...With the exception of North Whitehall in Lehigh County and Bushkill Township in Northampton County, high growth municipalities in both counties were those on the perimeter of the three cities where public sewers, public water, and road capacity has been generally available. This growth pattern has helped to reduce urban sprawl and its consequences in the Lehigh Valley...However, rural townships will experience...growth pressure in the next thirty years. In general development patterns in Northampton County are much more dispersed than in Lehigh County. The potential for urban sprawl is substantial. With increasing migration from New Jersey many rural townships in Northampton will be faced with increasing growth problems. **Early action to mitigate threats to the natural environment and to manage traffic is needed.** In order to cope with future growth pressures, municipalities will need to do better planning and implementation of plans than they have done in the past.

Economic, cultural and geographic forces that shape growth at the statewide and regional levels are difficult to stimulate if more growth is desired and equally difficult to manage if less growth is desired. Although states and regions have limited capacity to control growth, the authority of local municipalities is considerable. Communities can shape the location of growth and influence the timing and amount of growth. They do this through zoning regulations, sewer and water extensions, road improvements and resource protection policies. ...

EMPLOYMENT GROWTH

Between 2000 and 2030, the LVPC forecasts a 15% increase in jobs in the Lehigh Valley. If trends over the last 20 years continue, most of these jobs will be in services. Manufacturing industries are likely to bottom out around current levels... The shift from manufacturing to services in the Lehigh Valley echoes national trends. The shift is occurring some-what more rapidly in the Lehigh Valley because the area has historically had a more dominant manufacturing base than the Nation. During the 1980s, 1990s and early 2000s major job losses occurred at Bethlehem Steel, Mack Truck, Agere and other manufacturing concerns. Job increases came from insurance back offices, warehousing, health care, education and personal services.

Changes in the regional economic base have affected all facets of

space and farmland in Washington Township where rural and open space are recommended by this plan.

- ◆ ***To encourage new in-fill housing and economic development in the Boroughs.***
- ◆ ***To attract suburban and cluster housing development in designated Villages and in the areas adjacent to the Boroughs.***

If this Central Slate Belt Regional Plan is effective in reaching its goals, then some of the LVPC projected land development and population growth may be shifted from Washington Township into the three Boroughs.

GENERAL GROWTH POLICIES

- P Encourage cluster housing development as part of Conservation Planning in part of Washington Township**
- P Consider a zoning ordinance provision that would provide for the transfer of development rights from properties in rural and agricultural zoning districts into Residential and Village Zoning Districts.**
- P Develop a plan for the acquisition of development rights for open space and agricultural preservation.**

EMPLOYMENT GROWTH ESTIMATES

When the Boroughs, villages and Township of this Central Slate Belt were first created and developed, industry and business was an integral part of the community. During the last half century, the trend has been to concentrate industry and

life in the Lehigh Valley. Overall income levels have shown slow growth as high paying manufacturing jobs gave way to lower paying jobs in services and trade. Occupational requirements and training needs changed as the predominant blue-collar work force of previous decades changed to a white-collar labor force dominated by administrative and clerical personnel. Old industrial plants located in the cities shut down all or part of their operations as new office structures were built in suburban locations. Land uses, travel patterns and infrastructure needs shifted accordingly. In the cities and some of the other older urban areas, problems of rehabilitating old sites for new development are major issues. In many of the new developed areas, problems of dealing with traffic congestion and provision of adequate sewer and water facilities have surfaced. Balancing the need for sound economic growth with environmental protection and provision of adequate facilities and services is a major challenge confronting all municipalities in the future.

LAND USE

As part of the update to this comprehensive plan the Lehigh Valley Planning Commission did extensive analysis of land use trends in the Lehigh Valley ...

a)...It is projected that land consumption will exceed 4 square miles per year by 2030. By 2030 about 55% of the land will be in housing, commercial and industrial.

b) Suburban sprawl is a problem in the Lehigh Valley even though some national studies have shown that the Lehigh Valley has done better than most metropolitan areas in controlling sprawl. Measurements from 1992 and 2000 aerial photography show that 48% of the development in Lehigh County and 63% of development in Northampton County occurred outside of areas designated for urban growth in the Lehigh Valley Comprehensive Plan.

c) ...The key to controlling sprawl is more people living in higher density residential development in areas served with public sewer, public water, nearby transportation and other urban services. Consumer tastes for rural development create urban sprawl. Rural development carves large expanses of open space into small pieces.

d) Nearly all new industrial and business development in the Lehigh Valley is on "Greenfield sites". These are usually former farms converted to industrial sites. In 2002, 12,922 acres of land was zoned for industry in Lehigh and Northampton counties. Of this total 4,466 (35%) are considered prime Greenfield sites; i.e. sites with minimal environmental problems, available sewer and water and highway access. Lehigh County has 1,858 acres out of the 4,466 and Northampton County has 2,607.4... In Northampton County many of the zoned sites lack adequate sewer and water.

e) In addition to Greenfield acreage listed above, the Lehigh Valley Economic Development Corporation reports there are 2,079 available acres of potential redevelopment property in the Lehigh Valley. Sixteen hundred of these acres are the Bethlehem Steel properties on the south-side of Bethlehem. Redevelopment of these properties is an important land use and economic development issue."* * Source: Lehigh Valley Planning Commission, 2004, 2030 Comprehensive Plan, Lehigh and Northampton Counties, PA

major business in regional locations, along major thoroughfares, centralized for a larger market area. More recent trends include work at home and even primary businesses operating out of the home. A recent Pennsylvania Municipalities Planning Code (MPC) amendment acknowledges these trends. The MPC requires that every community permits, as a matter of right, "Home Based Businesses" within the limits of State and local law.

In this context, the following policies are proposed by this Plan:

- **To be a welcoming community to the "Technology Population" including the home based knowledge workers.**
- **To encourage connections among home based business people and other businesses within the Central Slate Belt Region.**
- **To facilitate a networking between schools of higher learning and all businesses including home based businesses in this Central Slate Belt Region.**
- **To encourage research to identify opportunities for recycling-based economic development and reclaiming of lands covered with remnants of slate mining.**

Note: A separate land use plan section is located at the end of this chart.

Lehigh Valley Comprehensive Plan

Lehigh and Northampton Counties, PA
(This column includes selected quotes from
the Lehigh Valley Comprehensive Plan ... 2030)

NATURAL RESOURCE PLAN

"... Before a plan for development is proposed it is first necessary to determine what needs to be preserved. Voters have spoken very clearly on the subject in public opinion surveys conducted over the past 30 years. They want to preserve important natural resources....

... Martins Creek flow directly into the Delaware. Blue Mountain, otherwise known as Kittatiny Ridge, extends south-west to the Maryland border. The mountain forms the northern boundary of Lehigh and Northampton counties. Lehigh Mountain and South Mountain are two landmark ridges on the southern border of Allentown...

Between Blue Mountain and South Mountain is a seven mile wide limestone valley where most people in the Lehigh Valley live and work. To the north of this valley is a low shale plateau with undulating hills, stream head-waters and a rural environment. The variety of topographic features in the Lehigh Valley creates a landscape with many natural landmarks and scenic beauty.

RIVERS AND STREAMS

The rivers and streams of the Lehigh Valley have played an important role in its history and development. The area's three cities and some of its major boroughs grew along the banks of the Lehigh or Delaware rivers... Many streams served as the sites for early mills that were dependent on a supply of running water. Most major industries also were located along the banks of rivers or streams.

Visually, rivers and streams provide some of the most scenic settings in the region. The top example of this is the Delaware River Scenic Drive that follows Route 611. The multitude of recreation activities associated with waterways is high on the list of important regional assets...

Many of the Lehigh Valley's best walking and biking trails are located near rivers and streams. The D & L Trail, a 150-mile path for hikers and bikers, extends from Bristol Borough in lower Bucks County to Wilkes-Barre...

Municipal parkways have been developed along rivers and streams. The most notable is the Little Lehigh Parkway in Allentown...A number of municipalities have developed parks adjacent to the Delaware and Lehigh Navigation Canals. Rivers and streams either serve, or have the potential to serve, as linkages between recreation areas. The most notable linkage is the one at the Lehigh Water Gap where the Appalachian Trail crosses the D & L Trail...

Critical wildlife habitats are found along waterways in the Lehigh Valley. Many species of birds, aquatic animals and mammals

Central Slate Belt Region Plan

Boroughs of Bangor, Roseto, East Bangor, and Township of Washington
(the BREW Region)

NATURAL RESOURCE PLAN

Natural resources that are respected and considered for preservation were identified in a **Central Slate Belt Planning Region Natural Features Inventory** report (NFI) prepared by Rodite & Pandl, LLC Community Planners in September of 2003. A few of the findings are summarized below:

- Agriculturally Productive Soils are mapped in the NFI report. Highly productive and moderately productive soils are highlighted. Unfortunately, most of the highly productive agricultural soils are located in the western part of Washington Township along the highly accessible SR 191 highway corridor and in locations that have already experienced subdivision activity and some land development on many farms in this area.
- Farms in the two Pennsylvania farmland preservation programs (Act 515 & 319) are mapped in the NFI both in the Central Slate Belt Area and a strip of land along the Washington Township Boundaries that extend into the adjacent three townships. The map portrays a very extensive participation particularly in the southern part of Washington Township and along the eastern and southwestern Township boundaries.
- Four major natural areas of statewide significance are identified in the Central Slate Belt Region as unique and important for the protection of biological diversity. Each one of the following areas are identified on a map in the NFI report.

depend on river and stream corridors for travel, cover and nesting places...

Finally, high quality rivers and streams are of critical importance for the preservation of water supplies in the Lehigh Valley. Much of the water we use comes directly or indirectly from local waterways.

STREAM QUALITY DESIGNATIONS

The streams of the state have been given water quality ratings by the Pennsylvania Department of Environmental Protection (DEP). These DEP stream quality designations are listed below.

- **EV (Exceptional Value Waters)** – waters that constitute an outstanding national, state, regional or local resource, such as waters of national, state or county parks or forests, or waters that are used as a source of unfiltered potable water supply, or waters that have been characterized by the Fish Commission as “Wilderness Trout Streams,” and other waters of substantial recreational or ecological significance.
- **HQ (High Quality Waters)** – a stream or watershed with exceptional quality waters and environmental features that require special protection.
- **CWF (Cold Water Fishes)** – maintenance and/ or propagation of fish species and flora and fauna that are native to cold water habitats.
- **TSF (Trout Stocking)** – maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and flora and fauna which are native to warm water habitats.
- **MF (Migratory Fishes)** – passage, maintenance and propagation of fishes which ascend to flowing waters to complete their life cycle.
- **WWF (Warm Water Fishes)** – maintenance and propagation of fish species and flora and fauna that are native to warm water habitats...

RIPARIAN (STREAMSIDE) BUFFERS

Riparian or streamside buffers are recognized as a vital feature for protecting and reclaiming waterways. 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. The riparian buffer reduces the amount of runoff pollutants entering the stream. It also controls erosion, provides leaf-litter to the stream and habitat for many desirable species of amphibians, reptiles, mammals and birds. If wide enough, riparian buffers function as corridors for migrating large and small mammals.

The riparian vegetation affects the stream channel shape and structure, as well as the stream’s canopy cover, shading, nutrient inputs and amount of large woody debris entering the stream. Riparian canopy cover (branches and tree crowns overhanging a stream) is important not only for its role in moderating stream temperatures through shading, but also as an indicator of

- Blue Mountain
- Roseto Pond
- Angle Swamp
- East Bangor Swamp Complex
- Wooded Areas

- Major woodlands, watersheds and creeks are identified in the NFI. Combining the NFI report and the LVPC Lehigh Valley 2003 Comprehensive Plan regarding stream quality reveals the following:
 - Martins/Jacoby Creek including its tributaries (Greenwalk and Waltz Creeks) is a Trout Stocking (TSF) Stream.
 - Little Martins Creek, Allegheny Creek, Oughoughton Creek, and Mud Run are all Cold Water Fishes (CWF) Streams

RIPARIAN (STREAMSIDE) BUFFERS

The above streams are quality streams. They are major assets to the Central Slate Belt Region. These streams connect each community with the others. This connectivity and interrelationship combines the natural and human environment into one major watershed neighborhood.

This Central Slate Belt Regional Plan recommends the creation, development and continual respect of riparian buffers along every stream and minor tributary in this region.

Riparian buffers are one way of respectfully dealing with storm water runoff. Other ways dealing with storm water runoff is to minimize impermeable land coverage on each parcel of land, and to develop and maintain effective ground water retention, detention and aquifer recharge systems.

Wetland (including swamps-bogs etc) should also be protected by riparian buffering. Wetland areas frequently act

conditions that control bank stability, and as an energy source from leaves that will fall into the water. Aquatic Macro-invertebrate organisms such as stoneflies eat, shred and break the leaves into coarse and fine particulate organic material that becomes food for other stream organisms.

Streamside buffers provide numerous benefits to landowners and the community by protecting groundwater recharge areas, providing flood control, providing stormwater management potential, and stimulating economic opportunities by creating valuable open space which may increase land values and the tax base. To be effective, the streamside or riparian buffer should be at least 35 feet wide from the top of the stream bank to the buffer's uphill edge. The Pennsylvania Department of Environmental Protection strongly encourages a riparian buffer of 50 to 100 feet.

Riparian buffers in the Lehigh Valley have been seriously disrupted over the years. Farming operations often have been practiced with little regard to protecting streams. More recently, residential and other forms of urban development have put serious stress on local streams. With proper planning this does not have to happen.

GOAL

To protect rivers and streams so they can provide numerous recreational and environmental benefits to Lehigh Valley residents.

POLICIES

- Encourage the restoration of streamside buffers on lands that border rivers and streams whether they are privately owned or owned by government.
- Recommend riparian buffers of 100 feet along rivers and major streams and buffers of at least 35 feet along all other streams.
- Encourage riparian buffers that contain a variety of native trees and plants. Discourage the development of riparian buffers with monocultures of exotic vegetation.
- Educate officials and landowners as to why it is important to protect rivers and streams.
- Encourage the development of rivers conservation plans for major streams.
- Encourage landowners with streams on their property to have conservation plans prepared that include best management practices for riparian buffers.
- Encourage landowners to put conservation easements on the parts of their property that include riparian buffers.
- Promote the use of existing voluntary best management practices in the management of forestry activities in and along streamside buffer areas.
- Municipalities should include provisions for the preservation and restoration of riparian buffers in their comprehensive plans, zoning ordinances, and subdivision and land development ordinances.
- High priority should be given to recreation, greenway and open space projects that involve rivers and streams.

IMPLEMENTATION

- During reviews, the Lehigh Valley Planning Commission will comment if riparian buffers are not consistent with the plan.
- The Lehigh Valley Planning Commission will create GIS maps

as ground water recharge areas.

GOAL

To protect streams so they can provide numerous recreational and environmental benefits to Central Slate Belt Region residents.

POLICIES

- ◆ Encourage creation of quality streamside buffers on lands that border streams.
- ◆ Encourage landowners with streams on their property to have conservation plans prepared that include best management practices for riparian buffers.
- ◆ Encourage landowners to put conservation easements on the parts of their property that include riparian buffers.
- ◆ Promote the use of existing voluntary best management practices in the management of forestry activities in and along streamside buffer areas.
- ◆ Include provisions for the preservation and restoration of riparian buffers in local zoning ordinances, and subdivision and land development ordinances.
- ◆ High priority should be given to recreation, greenway and open space projects that involve streams.
- ◆ Offer opportunities for colleges and universities to study streams and to adopt stream segments to develop riparian buffers.
- ◆ Encourage public and private local school teachers to monitor stream and riparian buffer quality and to work with students from colleges and universities who adopt a local stream and buffers.
- ◆ Facilitate the collaboration between young and older residents to adopt stream segments and their riparian buffers to monitor their quality and do streamside clean up when necessary. Boy scouts, girl scouts

and a database that provide information on streams. Information will include items such as water quality, recommended riparian buffer widths, identification of existing parks and other open space features.

- The Lehigh Valley Planning Commission will prepare examples of riparian buffer regulations that can be used by municipalities in their zoning ordinances and subdivision and land development regulations.
- The Lehigh Valley Planning Commission will explore ways it can promote educational programs on riparian buffer restoration and stream protection.
- The Lehigh Valley Planning Commission will cooperate with other organizations that are concerned about stream protection.
- As part of their open space initiatives, Lehigh and Northampton counties should give extra consideration to park and open space proposals that involve the protection of land along rivers and streams.
- The counties and municipalities and other organizations should take advantage of state and federal grant programs that can be used to protect riparian buffers.
- The Lehigh Valley Planning Commission will prepare a regional greenways plan for Lehigh and Northampton counties. The plan will emphasize the importance of rivers and streams in greenway planning.

FLOODPLAINS

Floodplains absorb and store large amounts of water which is a source of aquifer recharge. Natural vegetation supported by floodplains helps trap sediment from upland surface runoff, stabilize stream banks and reduce soil erosion. Floodplains also provide shelter for wildlife and proper stream conditions for aquatic life. Many of the most scenic areas in Lehigh and Northampton counties are found within the floodplain of the Delaware River, Lehigh River, and larger streams...

Regulation of floodplains helps to reduce the threat to human life and property caused by periodic flooding. For regulatory purposes, a floodplain is defined by the 100-year or base flood which has a one percent chance of being equaled or exceeded in a given year.

The Pennsylvania Floodplain Management Act (Act 166 of 1978) requires municipalities identified as being flood-prone to enact floodplain regulations which, at a minimum, meet the requirements of the national Flood Insurance Program (NFIP). All flood-prone municipalities in Lehigh and Northampton counties participate in the program and have flood-mapping that was prepared by the Federal Insurance Administration of the U.S. Department of Housing and Urban Development.

GOAL

To minimize flood damage and protect floodplains.

POLICIES

- Prohibit new buildings, structures and fill in the 100-year floodplain except for highways and certain other structures owned or maintained by the Commonwealth of Pennsylvania, municipalities or public utilities as defined and regulated in

and senior citizens through a senior center facility could be the place to initiate this policy.

FLOODPLAINS

Several of the villages in Washington Township (i.e. Ackermansville, Factoryville, and Richmond) and the Borough of Bangor have major floodplain areas. In some cases, development has already encroached on these flood plain areas. Fortunately prior to late 2004 & early 2005, it was almost two decades since major flooding occurred as a region-wide event. Major flooding is a game of chance. One or more major flood events will occur and it is most prudent to manage land use so as to reduce the damage to individual properties in the Central Slate Belt Region. This Regional Comprehensive Plan recommends a region-wide approach to this issue with the following goal and policies:

GOAL

To minimize flood damage and protect floodplains.

POLICIES

- Prohibit new buildings, structures and fill in the 100-year floodplain except for highways and certain other structures owned or maintained by the Commonwealth of Pennsylvania, municipalities or public utilities as defined and regulated in Chapter 106 Floodplain Management of Title 25 Environmental Protection, Pennsylvania Code.
- Where the reuse or substantial improvement of existing buildings or the redevelopment of vacant but formerly developed land is appropriate within the floodway fringe, this should only take place if adequate floodproofing measures are taken. Redevelopment of vacant, formerly developed land is not recommended within the floodway.

Chapter 106 Floodplain Management of Title 25 Environmental Protection, Pennsylvania Code.

- The reuse or substantial improvement of existing buildings or the redevelopment of vacant but formerly developed land is appropriate within the floodway fringe if adequate floodproofing measures are taken. Redevelopment of vacant, formerly developed land is not recommended within the floodway.

IMPLEMENTATION

- The LVPC will provide model regulations covering floodplains.
- Municipalities should adopt special zoning and subdivision regulations to prohibit or otherwise control development in the 100-year floodplain.
- The LVPC will maintain a set of the most up-to-date floodplain maps that have been prepared for the National Flood Insurance Program. In the absence of other data, maps of alluvial soils should be used to identify areas subject to flooding.
- The LVPC will assist property owners, lending institutions, businesses and others in determining what properties are subject to the National Flood Insurance Program.
- The LVPC will promote and support park, greenway and other proposals that preserve floodplains for recreation and open space.
- Any conflicts with policies on floodplains will be noted during LVPC reviews of subdivisions and land developments.

WETLANDS

Wetlands perform a variety of important physical and biological functions. They moderate stormwater runoff and downstream flood crests because they are natural water storage areas. Also they provide habitat for many species of plant and animal life. Wetlands also help to maintain stream flow and groundwater discharge. There are problems associated with developing on wetland soils. Wetlands located in floodplains are often flooded. Draining or filling in of upland wetlands removes natural water storage which can add to stormwater runoff problems downstream. Wetland soils are easily compacted. This results in uneven settling of structures. Wetland soils with low permeability and high groundwater tables are not suitable for the installation of on-lot septic systems. Lehigh and Northampton counties contain over 1,000 individual sites that can be classified as wetlands. Wetlands are found in every municipality, but the largest concentration occurs in Upper Mt. Bethel Township. The U.S. Geological Survey Quadrangle Map covering that area shows more than 300 individual wetlands. A sizeable concentration of wetlands occurs in Lynn Township, Lehigh County, and at other locations along the base of Blue Mountain.

GOAL

To protect the remaining wetlands in the Lehigh Valley.

POLICIES

- Preserve 100% permanent open space in all wetlands.
- Manage county-owned wetlands to maintain and enhance their environmental, scenic, scientific and educational values.

IMPLEMENTATION

- The LVPC will maintain copies of the National Wetlands Inventory Maps and other wetlands information for public use and

- Floodways and in some cases parts of the 100 year flood plain land areas could be purchased by an entity that will preserve and protect the flood area from development. As part of that acquisition (in fee simple or development rights purchase), these areas should be included in riparian buffers and where possible developed as linear parks.

WETLANDS

This Central Slate Belt Regional Comprehensive Plan views quality preservation of streams, respectful use of their flood plains and riparian buffers as the framework for the entire land use plan. In addition, wetlands are the sensitive areas that feed and influence the quality of the ground water network that connects to the streams. In a way it is analogous to sustaining healthy growth of a tree. It is not only important to preserve the quality of the tree trunk and tree branches, but it is most important that the leaves get adequate sun light to nurture positive health and growth of the tree. Similarly, healthy wetlands are a priority for this Central Slate Belt Regional Comprehensive Plan. There are many wetland sites in this four community planning region. Following are goals and policies that seek to preserve and enhance the quality of wetlands:

GOAL

To protect the remaining wetlands in the Central Slate Belt Region.

POLICIES

- * Preserve 100% permanent open space in all wetlands.
- * Require a 100 foot riparian type buffer around all wetlands and a 100 foot buffer around all wetlands that are in critical aquifer recharge areas particularly in the foot hills of the Blue Mountain and the Greenwalk Creek watershed. Both of these areas provide water

plan reviews by staff.

- LVPC staff will improve and expand the inventory of wetlands as new information becomes available.
- During subdivision, land development and sewage facilities reviews, LVPC staff will check to insure that the proposed development is consistent with the wetlands policies and that sewage disposal systems and wetlands are adequately separated.
- During review of local comprehensive plans, zoning ordinances, or subdivision and land development ordinances, the LVPC will recommend strategies for protection of wetlands and wetland buffers.
- Municipal comprehensive plans should include an identification of wetland areas. Municipalities should include provisions for the protection of significant wetlands in local zoning and subdivision ordinances.
- The LVPC recommends that municipalities, counties or conservancies acquire and manage wetlands that are identified as having special significance.

STEEP SLOPES

Slopes with grades of 15% or over are steep. If disturbed, these areas can yield heavy sediment loads on streams. Very steep slopes, over 25% grade, produce heavy soil erosion and sediment loading. Septic systems for on-lot sewage disposal are impractical to construct and maintain on very steep slopes because the downhill flow of the effluent is too rapid. Improperly treated effluent is likely to surface at the base of the slope, causing wet, contaminated seepage spots. If there is a layer of impervious material such as dense clay or rock under shallow soils, the effluent may surface on the slope and run downhill unfiltered.

The steepest slopes and the greatest concentration of steep slopes are found on the Blue Mountain and South Mountain. There are sizeable areas of steep slope in townships along the northern and southern borders of Lehigh and Northampton counties. A notable characteristic of steep slope areas is that they are nearly all wooded. Very few steep slopes are used for cropland or pastures.

GOAL

To minimize the adverse environmental impacts of steep slope development.

POLICIES

- Future development is not recommended on slopes greater than 25%.
- On slopes of 15% to 25%, large lots with low site coverage standards should be maintained and special erosion and storm drainage controls enforced. The LVPC recommends a maximum of one dwelling unit per acre if public water and sewers are available. A minimum lot size of three acres is recommended if an on-lot water supply or sewer system is used. In cities and other urban areas, infill development on steep slopes should be allowed in accord with the zoning ordinance if site design can eliminate or greatly reduce the negative environmental impacts of the project.

IMPLEMENTATION

- The LVPC will provide model regulations that limit steep slope development.

sources for human consumption. Offer opportunities for colleges and universities to study streams and to adopt stream segments to develop riparian buffers.

- * Encourage public and private local school teachers to adopt certain wetlands that exist in key stream watersheds. Facilitate the collaboration between young and older residents to monitor their quality and do wetland buffer clean up when necessary. Boy scouts, girl scouts and senior citizens through a senior center facility could be the place to initiate this policy

STEEP SLOPES

The Blue Mountain ridge and roadways such as SR 191 that descend from that ridge provide beautiful views of the Central Slate Belt Region and beyond. There are other promontory views along SR 191 throughout its corridor in this Planning Area. Many of the views are of a picturesque quilt like pattern of farms, streams, and housing. It is very tempting for people to want to capture that type of view by building their home on a slope that provides such a vista. However, like the old parenting term, "look but don't touch" there are hazards for development of steep slope areas. For this reason the Central Slate Belt Regional Comprehensive Plan adopts a similar set of goals and policies as proposed in the Lehigh Valley Comprehensive Plan as follows:

GOAL

To minimize the adverse environmental impacts of steep slope development.

POLICIES

- * Future development is not recommended on slopes greater than 25%.
- * On slopes of 15% to 25%, large lots with low site coverage standards should be maintained and special erosion and storm

- Any conflicts with policies on steep slopes will be noted during LVPC reviews of subdivisions and land developments.
- Municipalities should adopt zoning and subdivision and land development regulations to control development on steep slopes.

CARBONATE GEOLOGY

In Lehigh and Northampton counties, 46 of the 62 municipalities are underlain entirely or in part by carbonate rock... These carbonate formations are located in the Lehigh Valley's urban core. They provide the primary raw material for the local cement industry and they lie under the most fertile soils.

Carbonate rock has the potential for sinkhole formations, which are fairly common in the Lehigh Valley. When sinkholes occur in developed areas, they can cause severe property damage, injury and the loss of life, disruption of utilities and public services, and damage to roadways.

WOODLANDS

Woodlands are valued for many reasons. They provide recreational opportunities for nature study, hunting, hiking, horseback riding and scenic views. Woodlands can be used for firewood harvesting, commercial timbering, and as land use buffers and boundaries. Many species of birds depend on large, unbroken wooded tracts for survival. Woodlands also mitigate environmental stress by reducing stormwater runoff, filtering groundwater recharge, controlling erosion and sedimentation, moderating local microclimates and purifying air. Many woodlands are located on other environmentally sensitive areas such as steep slopes and floodplains. This adds another important reason for them to be protected. The largest tracts of unbroken woodland are on Blue Mountain and South Mountain...

GOAL

To protect and manage the region's woodland resources.

POLICIES

- Woodlands that have important environmental significance should be protected or preserved.
- When development is planned for wooded tracts, site design and development should maximize preservation of trees.
- Landowners should improve their woodlands by taking advantage of the Cooperative Forest Management Program offered by the State Bureau of Forestry. This includes having a forest management plan prepared by a professional forester if logging is intended.

IMPLEMENTATION

- Municipalities should adopt zoning and subdivision regulations to control tree removal and the indiscriminate cutting of trees during sub-division and land development activities.
- Important woodlands such as those on South Mountain and Blue Mountain should be acquired by conservancies or local government.
- During review of local comprehensive plans, zoning ordinances, and subdivision and land development ordinances, LVPC staff will recommend woodland protection policies and standards, as needed.

drainage controls enforced.

CARBONATE GEOLOGY

The geology of Washington Township does not include areas underlain by carbonate rock (*like limestone*). (MOST OF THE AREA IS UNDERLAIN BY: (omb) BUSHKILL MEMBER, (omp) PEN ARGYL MEMBER, AND (omr) RAMSEYBURG MEMBER which are not prone to sinkhole development..

WOODLANDS

The Central Slate Belt Planning Region contains nearly 30,000 acres of woodlands. Significant wooded areas are located in the northern quarter of the planning region and encroach into the Boroughs of Bangor, Roseto and East Bangor. Together with the creeks, the associated woodland provides important wildlife corridors that serve as habitat and migration paths throughout the planning region.

The woodland areas in Washington Township are predominantly mixed oak forests generally located along stream corridors and steep slopes. There are isolated hemlock forest associations along the north facing slopes of Martins Creek. Although the forest is fragmented due to development, significant forested areas occur on the Blue Mountain slopes and Nagy Hill, as well as within the riparian corridors that bisect the township in a general north south direction.

GOAL

To preserve the natural woodlands as an important natural resource along steep slopes and watercourses in order to maintain their functions in erosion control, slope stabilization and as important wildlife corridors.

POLICIES

To preserve established woodland areas, especially within areas identified as containing important natural features.

- The LVPC will provide model regulations to control logging and the cutting of trees.

NATURAL FEATURES PLAN

Lehigh and Northampton counties have many significant natural features that are worthy of protection. These include high quality streams, rare plant communities, critical wildlife habitats and outstanding geologic features. Some areas such as Bake Oven Knob in Heidelberg Township and The Delaware River Water Gap in Upper Mt. Bethel Township are large, well-known features that are easily identified. At the opposite end of the recognition scale are small, obscure sites with rare plant communities.

In 1997 the Lehigh Valley Planning Commission contracted with The Nature Conservancy to prepare a report titled A Natural Areas Inventory of Lehigh and Northampton Counties, Pennsylvania. The Natural Areas Inventory report presents the Lehigh Valley's known outstanding features — floral, faunal, and geologic...

...the Delaware River and its adjacent forested watershed and the Blue Mountain are recognized as exceptional natural features. Both serve as major corridors for the movement of biota in eastern Pennsylvania. Many smaller stream valleys, such as the Bushkill and Little Lehigh, are important local natural resources. Nearly all significant natural areas have other resource characteristics or development limitations... Some critical wildlife habitats coincide with floodplains of the Delaware and Lehigh rivers or the large, unbroken woodlands on Blue Mountain and South Mountain...

Areas are weighted and prioritized to assure that the areas with the greatest combination of important natural features are given highest priority in future conservation activities. Very high conservation priority areas should be given first consideration for public and private conservation acquisition programs. High priority areas should also be considered for acquisition, especially if they are part of a larger natural feature identified as very high conservation priority. In some cases, such as flood plains and steep slopes high priority areas might be adequately protected through municipal zoning. Medium priority areas should be protected through zoning regulations, conservation subdivision design and conservation farming practices. Many of these areas may include small stands of woodland, drainage swales or poorly drained soils that are either part of local farm operations or are part of larger residential lots.

GOAL

To protect significant natural features including special geologic formations, rare plant communities and critical wildlife habitats.

POLICIES

- Protect very high and high priority natural areas through acquisitions and conservation easements.
- Preserve the top priority natural areas listed in the report "A Natural Areas Inventory of Lehigh and Northampton Counties, PA"...
- Manage county-owned significant natural areas to maintain the health and quality of the site and to regulate public access.
- Where appropriate consider natural areas in park and recreation

To provide property owners with education and incentives to protect woodlands on private property.

To encourage site development with sensitivity to preserving trees and uninterrupted woodland areas.

IMPLEMENTATION

Prior to development wooded areas and significant mature trees should be located on the development plan and development designed, where possible, to preserve existing woodlands.

NATURAL FEATURES

The Central State Belt Region includes four natural features identified by the State to be of regional significance. Blue Mountain, extending along the northwestern most corner of the planning area, is identified as an area of exceptional significance, because of its natural diversity, relatively uninterrupted expanse and importance in the major east coast raptor migration flyways. Within Washington Township, **Roseto Pond** and **Angle Swamp** have been identified as significant because of their population of Pennsylvania rare and endangered plant species. Additionally, a portion of the **East Bangor Swamp** Area of Upper Mount Bethel Township extends into the eastern portion of Roseto Borough and a small part of Washington Township. It is listed as a high priority site for preservation, since it represents the largest contiguous wetland complex in Northampton County.

GOAL

To protect significant natural features from disruption and development.

POLICIES

To protect Blue Mountain and East Bangor Swamp as the highest regional priority through acquisition and conservation easements.

<p>plans.</p> <ul style="list-style-type: none"> • Support county funding raised by bond issues or other sources for the conservation of natural features. <p>IMPLEMENTATION</p> <ul style="list-style-type: none"> • Conduct research on significant natural areas, based on State, Federal and local agency listings of species and sites. • The LVPC will work with the two counties, municipal governments and conservancies to facilitate the acquisition of the top priority natural areas that are not already protected... <p>. ** Source: Lehigh Valley Planning Commission, 2005, 2030 Comprehensive Plan, Lehigh and Northampton Counties, PA</p>	<p>Work with property owners on Angle Swamp and Roseto Pond to prevent further degradation.</p> <p>Work with communities abutting areas of natural significance to ensure a comprehensive and coordinated approach to their preservation.</p> <p>IMPLEMENTATION</p> <p>Develop best management practices for roads adjacent to natural areas, including non destructive weed abatement and pest management.</p>
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<p align="center">Lehigh Valley Comprehensive Plan Lehigh and Northampton Counties, PA (This column includes selected quotes from the Lehigh Valley Comprehensive Plan ... 2030)</p>	<p align="center">Central Slate Belt Region Plan Boroughs of Bangor, Roseto, East Bangor, and Township of Washington (FOCUS ON WASHINGTON TOWNSHIP)</p>
<p align="center">FARMLAND PRESERVATION</p> <p>“Lehigh and Northampton counties have some of the best farm-land in Pennsylvania. This land is being converted to housing, commercial and industrial uses at a rate of 3.5 square miles per year. Housing accounts for about 80% of this land conversion... ...most agricultural parts of the Lehigh Valley are under intense development pressure.</p> <p>Lehigh Valley residents think preserving farmland is important. The 1999 LVPC voter attitude survey shows 91.4% of the voters favored preserving farmland. In April 1999, the Pa. General Assembly included \$43 million in the budget for farmland preservation. This amount supplements the 1987 \$100 million bond issue and other funding. Voters in Lehigh and Northampton counties have strongly supported open space and farmland preservation bond issues.</p> <p>Farmland preservation efforts in this region have been picking up momentum. These efforts have mostly focused on conservation easement acquisition by the counties... At that time Lehigh County had 22 square miles of land in conservation easements. Northampton County had 9 square miles. Agricultural security areas have been designated in both counties on 93 square miles of land. In order to qualify for the conservation easement program land must be in an agricultural security area which is created under voluntary agreements between the property owner and the municipality. Under the conservation easement program the property owner sells rights to develop land for non-agricultural purposes to the County. The property owner continues to own the land and farm it.</p> <p>Thirty-one square miles of land are protected by conservation</p>	<p align="center">FARMLAND PRESERVATION</p> <p>The Central Slate Belt Area (in Washington Township) has some of the best farmland soil in Pennsylvania. Unfortunately, most of this good soil area is in the western part of Washington Township where it is more easily accessible to SR 191. This relatively good accessibility contributes to the attractiveness of developing farms in this area as residential subdivisions. The attractiveness relates to the relatively easy commute on SR191 to employment opportunities either in the Lehigh Valley or north to the Poconos or to the New Jersey-New York metropolitan area. In fact, looking at a parcel map and land use map, it is evident that there are many lots and new homes in this good agricultural soil area of Washington Township.</p> <p>The positive side of the agricultural soil situation relates to soils that are classified as moderately productive agricultural soils. Washington Township lands with moderately productive agricultural soils are in the southern and southeastern parts of the Township. These sections of the Township are not as accessible except for the far eastern part of the Township via US 611 that provides access. For limited accessibility and other reasons, there seems to be slightly less subdivision activity in the</p>

easements. This accounts for only 4% of the land in the Lehigh Valley. Approximately 13% of the land is covered by agricultural security agreements. Clearly, the counties and municipalities in the Lehigh Valley have a long way to go if they intend to pre-serve a significant amount of land for agriculture in the future.

Municipalities can preserve farmland through local zoning controls. To be effective these controls must exclude uses other than agriculture, farm residences and accessory uses in agricultural areas and they must curtail subdivision development. Restrictive zoning practices have not been popular in the Lehigh Valley. Only four municipalities in Lehigh County (Lynn Township, Heidelberg Township, Lower Macungie Township and Upper Saucon Township) have effective agricultural zoning...

...Areas shown on Lehigh Valley Farmland Preservation Plan have the following characteristics: (1) a concentration of prime farmland as defined by the Pennsylvania Municipalities Planning Code and soil survey data, (2) concentration of properties designated as Agricultural Security Areas in mid 2003, (3) clusters of farms that have been preserved for farming under the County conservation easement program. Not all properties in areas depicted on the map are covered by agricultural security agreements or conservation easements. It is assumed that the areas depicted are the most likely locations for such designation in the future...

Northampton County... has areas where farmland preservation should be encouraged. Some of the best soils in the region occur in the area from Allen Township to the Delaware River at Riverton in Lower Mt. Bethel Township. There are sizeable areas in Moore, East Allen, Plainfield, Washington, and Upper and Lower Mt. Bethel where farming should remain as the primary land use... Other townships which include areas recommended for farmland preservation include Lehigh, Allen, Upper and Lower Nazareth, and relatively small areas in Bethlehem and Bushkill townships.

GOAL

To preserve approximately 25% of the land in Lehigh and Northampton counties for agriculture.

POLICIES

- Support effective agricultural zoning, agricultural security areas, and purchase of agricultural easements in areas where farming is the recommended land use.
- Preserve large contiguous clusters of farmland in areas that have not been substantially urbanized.
- Discourage the extension of central water and sewer services and new roads into areas where farming is the recommended use.
- Discourage preservation techniques such as agricultural zoning, agricultural security areas and the purchase of agricultural easements in areas where urban development is recommended.
- Encourage farm-related business in areas where farming is recommended.
- In areas recommended for farming, agricultural uses should

southern and southeastern parts of the Township. This provides a window of opportunity for more effective farmland preservation policies to be implemented.

In June of 2004, Washington Township with the assistance of Rodite & Pandl, LLC Community Planners, conducted a survey of land owners with 10 acres or more most of which were farmers. The response rate was 39% of the 165 land owners surveyed. A summary of responses follows:

- 81% were from smaller farm and open space holdings in the 10 to 75 acre size
- 65% of the parcels were still being farmed.
- Type of farming from most to least- field crop, equestrian, live-stock, other (tree, hay, fish), orchards, and dairy.
- Current plans: 54% wish to remain in agriculture, 3% wish to sell, and 11% wish to retain development rights, 32% were unsure of what to do.
- 71% agreed that Washington Township should establish an Agricultural Protection Zone. (29% did not agree)
- 56% favor a zoning approach that would preserve farmland and open space by restricting development in areas zoned for agriculture. (13% do not favor this approach and 31% are not sure)
- Methods to preserve farmland received the following support:
 - 48% agree with a restriction to develop only 10% of farmland.
 - 19% agree with a restriction to develop only 20% of farmland.
 - 10% agree with a restriction to develop only 30% of farmland.
 - 23% agree with a restriction to develop only 50% of farmland.

GOAL

To preserve approximately 70% of remaining farmland in Washington Township for agriculture and open space.

POLICIES

be protected from residential development and non-farm activities that interfere with normal farming practices.
• Target strategic areas for preservation...

IMPLEMENTATION

- LVPC staff will make recommendations to each county government and agencies involved in agricultural preservation on matters pertaining to this plan.
- LVPC will support effective agricultural zoning such as the type used in Heidelberg and Lynn townships. LVPC staff assistance will be offered to townships that want to enact similar zoning to protect areas that the regional plan recommends for farmland preservation.
- During subdivision and land development reviews, LVPC staff will identify any inconsistencies with areas recommended for farming on the General Land Use Plan.
- During utility and transportation reviews LVPC staff will identify conflicts with existing Agricultural Security Areas and areas recommended for farming in the plan.
- During updating or review of local comprehensive plans, staff will recommend mapping of important farmland, Agricultural Security Areas, and farmland where agricultural easements have been purchased so that these areas can be considered for preservation in the comprehensive plan.
- Consideration will be given to amending the General Land Use Plan to add "farmland preservation" areas where actions at the local level make farming the recommended use if farming is consistent with other policies of this plan.
- Agricultural Land Preservation Boards in each county should preserve farmland primarily in the areas designated for farmland preservation in this plan. The Agricultural Land Preservation Boards in each county should give greater importance in their scoring systems to conformity with the recommendations of the County Comprehensive Plan.
- The counties and municipalities should provide an adequate level of financial support for acquisition of development rights on agricultural properties."*

● Source: Lehigh Valley Planning Commission, 2004, 2030 Comprehensive Plan, Lehigh and Northampton Counties, PA

- Create effective agricultural zoning.
- Support agricultural security areas, and purchase of agricultural easements in recommended farmland preservation areas.
- Preserve large contiguous clusters of farmland in areas that have not been substantially urbanized.
- Discourage extension of central water and sewer services and new roads into areas where farming is the recommended use.
- Encourage farm-related business in areas where farming is recommended.
- Protect recommended farmland preservation areas from residential development and non-farm activities that interfere with normal farming practices.
- Target strategic areas for preservation such as prime farmland and areas where clusters of like-minded farmers own land that they wish to preserve in farmland.

<p align="center">Lehigh Valley Comprehensive Plan Lehigh and Northampton Counties, PA(This column includes selected quotes from the Lehigh Valley Comprehensive Plan ... 2030)</p>	<p align="center">Central Slate Belt Region Plan Boroughs of Bangor, Roseto, East Bangor, and Township of Washington (the BREW Region)</p>
<p align="center">LAND USE</p> <p>“The Natural Features Plan and the Farmland Preservation Plan present the land preservation components of this comprehensive plan. This chapter presents the recommended general land use plan for the Lehigh Valley which includes recommendations for urban, suburban and rural areas. Also included are LVPC goals and policies for developments of regional significance.</p> <p align="center">GENERAL TRENDS AND PATTERNS FOR DEVELOPMENT IN THE LEHIGH VALLEY</p> <p>As previously noted the Lehigh Valley population is growing modestly. With a few exceptions cities and boroughs in the Lehigh Valley are not growing. Residential growth is greatest in suburban townships with public sewer and water on the perimeter of Allentown, Bethlehem and Easton. Between 75% and 80% of the subdivided lots in the Lehigh Valley are in urban or suburban areas where urban development is recommended. Unfortunately the remaining 25% of lots that are subdivided in rural areas constitute 75% of the acreage of subdivided land. This is because rural densities are much lower than urban and suburban densities. People who move to rural areas want larger lots and need them to handle septic tanks, sand mounds, and wells. Zoning policies enacted by municipalities promote this type of development. The inevitable consequences are:</p> <p>a) increasing consumption of farmland and natural resources; b) increasing dispersion of development; c) increasing traffic on rural roads.</p> <p>These trends are not unique to the Lehigh Valley. They exist throughout Pennsylvania and the nation. Also these trends are not new; they have existed for most of the post WWII period in the United States. In comparison with other parts of the country Pennsylvania seems to be less successful in dealing with them. The Lehigh Valley is changing from a predominantly agricultural area to a predominantly urban area. In 1975, 67% of the area was agriculture and vacant land. By 2030 this percentage will drop to about 45%...</p> <p>Most urban development in the region is between Route 22 and I-78 from Route 100 east to the Delaware River. Interchange locations in this corridor have been popular sites for business and industrial locations since the late 1950s. The corridor is also bounded by rapidly developing suburbs such as Hanover and Bethlehem townships in Northampton County and Upper and Lower Macungie townships in western Lehigh County. Development in western Lehigh County was strongly influenced by the development of a long sewer interceptor from western Allentown to the industrial area...</p>	<p align="center">LAND USE PLAN</p> <p>The Natural Features Plan and Farmland Preservation Plan are a part of this Land Use Plan for the Central Slate Belt Region in general and Washington Township in particular.</p> <p align="center">STATEMENT ON LAND USE PLAN UPDATE</p> <p>On April 9, 1979, the Washington Township Supervisors adopted an update to their comprehensive plan. It was a Land Use Plan Section. Following are some summary statements and comments related to that plan that will be updated by this 2004- 2005 Central Slate Belt Regional Comprehensive Plan.</p> <p><u>Purpose of 1979 Plan</u> – The recommendations made in 1979 were to update the land use plan section of the 1969 Washington Township Comprehensive Plan. Special consideration was given to environmental factors during the preparation of the 1979 plan update.</p> <p><u>1979 Land Use Plan Goals and Objectives</u> – (followed by a year 2005 report card grade- A through F)</p> <ol style="list-style-type: none"> 1. To keep the Township rural in character. (C) 2. To provide land area for development in Washington Township that will be economical to serve with public services, facilities, and utilities. (A) 3. To preserve good agricultural land and dairy farms (that are being farmed well) from encroachment by land development. (F) 4. To protect and safeguard citizens and property by keeping all development away from areas with known natural hazards. (A) 5. To permit new residential

Expanses of farmland and other open space still exist in north-western Lehigh County, southwestern Lehigh County, north-eastern Northampton County and southeastern Northampton County. There is also an area of prime farmland south of Bath and Nazareth. However, farmland is disappearing rapidly. Rural single family subdivisions on large lots served by on-lot sewer and water are scattered throughout the region. In the less developed areas individual lots or small groups of lots are found along existing roads and at rural road intersections.

...The fact is many municipal zoning ordinances that designate areas for environmental protection and agriculture protection are ineffective in accomplishing either goal. In the Lehigh Valley only six municipalities have strong zoning regulations that will protect agriculture. These are Lynn, Heidelberg, Lower Macungie, Upper Saucon, Allen and East Allen townships. Only small areas are protected in Lower Macungie, Upper Saucon, Allen and East Allen. In Heidelberg and Lynn townships property owners are limited to subdivision of 10% of their property for non-agricultural purposes. This has helped to reduce development pressure in these townships.

Environmental protection zoning has been successfully initiated in many Lehigh Valley municipalities. Thirteen municipalities have enacted strong environmental protection zoning. A number have added environmental overlays to existing zones. Effective environmental protection generally includes very low density zoning. On Blue Mountain Lehigh and Moore townships limit single family residential zoning to 10 acres per dwelling unit. Most of the other municipalities have passed zoning ordinances that require minimum residential lot sizes in the range of 3 to 5 acres per lot.

Unless municipalities are willing to curb development with large minimum lot sizes, land acquisitions, or measures that will limit subdivision development, they will not conserve much natural and agricultural land. A minimum lot size of one acre will only assure more large lot subdivision development, which is a primary characteristic of urban sprawl. The emphasis here is on natural features and agricultural preservation because they comprise a large part of the Lehigh Valley landscape and restrictive zoning to protect these resources is in accord with Pennsylvania land use law. Growth management in the region depends largely on how municipalities deal with these zoning categories.

Some suburban and rural townships are reaping substantial tax benefits from new development, especially development of large expensive homes. It is tempting to create zoning regulations that will promote this type of development. Pennsylvania courts have long taken a dim view of large lot zoning practices. Large lot zoning must have some relationship to natural resource protection or agricultural preservation. Large lot zoning just to support expensive housing is probably not sustainable if challenged.

Managing commercial development is another problem in many suburban and rural municipalities. Long ribbons of commercial zones are evident in many municipalities. Although this type of

development at medium density near the boroughs and low density development in the farming and wooded sections of the Township. At present, low density means 1.5 acres (65,000 sq. foot lot minimum) and medium density means 1 acre (43,560 sq. foot lot minimum). (A)

- 6. To establish 20,000 square feet as the absolute minimum lot size regardless of the above bonus reductions in lot size.(B+)**
- 7. To discourage multi-family housing in the low density (R-1) Residential District. (D)**
- 8. To protect the most northerly part of the Township from intensive development in order to protect water sources and preserve the more fragile steep slope environment. A minimum three (3) acre per dwelling unit density is assigned to this area. (A+)**
- 9. To prevent blight and disorderly development of land which are blighting influences. (B)**
- 10. To coordinate development activities between private and public developers of land within the Township. (B)**
- 11. To establish a park and recreation Board that can provide recreation activities and facilities. (A)**
- 12. To improve the Township and State roads which make up the proposed circumferential road-way around Bangor. (D)**
- 13. To relieve the increasing traffic problem area at the commercial zone along Pa. Route 512. (C)**
- 14. To coordinate public, semi-public and private development in proximity to the proposed Slate Belt hospital so that a hodge-podge of land use and inadequate traffic system are avoided. (C)**

The above goals and objectives continue to have merit as vision statements for 2030. The greatest need is to recommend policy statements and implementation that will be more effective in regard to progress toward those goals.

zoning may be attractive to business it adds to traffic congestion and traffic accidents because it creates too many points of access that conflict with moving traffic. Municipalities need to concentrate business activities and control access along major roadways.

REGIONAL LAND USE PLAN

...It is recommended that most future urban growth, including most residential, industrial and business expansion, be located in the urban areas. In designating the urban areas, LVPC considered recommendations of multi-municipal plans underway in early 2004, local zoning, and potential expansion of public sewer systems. Rural areas are low density areas with no existing public sewers and a mixture of low density housing, scattered businesses and farms. Major residential, employment and institutional development is not recommended in rural areas.

GOAL

To provide a regional framework for protecting natural and agricultural resources, guiding the location and intensity of development, and matching land development with appropriate infrastructure.

POLICIES

- Most new growth should go into parts of the Lehigh Valley which have public sewers and major highway infrastructure and where extension of this infrastructure is feasible in the future.
- New growth should be contiguous to existing development in areas adequately served with public sewer, water and transportation.
- New growth should not go into areas recommended for natural resource protection or agricultural protection.
- Generally, housing density and housing variety should be increased in urban development areas.
- Rural areas not designated for natural resource protection, agricultural protection or future urban growth are planned for low density, low intensity rural uses.
- Land uses and land use intensities should be compatible at adjoining municipal borders.
- Municipalities should require access management measures to minimize and control land use impacts on major roads.
- County buildings and facilities should be located in areas recommended for urban development in this plan unless the facility clearly requires a rural location.

IMPLEMENTATION

- Pennsylvania should amend the Pennsylvania Municipalities Planning Code to convey greater authority to counties in protecting natural and agricultural resources, managing regional growth and assuring consistent planning policies.
- The Lehigh Valley Planning Commission will continue to support multi-municipal planning projects as the preferable way to undertake local planning consistent with county planning.
- The LVPC will use its review authority under the Pennsylvania Municipalities Planning Code to make recommendations relevant to land use issues and consistency between local and

Additional goal statements should also be added to the above 15 to reflect the multi-municipal planning process that is currently under way in this Central Slate Belt Region. Following are recommended goal statements:

LAND USE PLAN GOAL

To keep development compact in and around existing villages.

POLICY

Consider permitting housing development at higher density than surrounding areas within the boundaries of the village and a mixture of service, retail and small scale manufacturing land uses. Villages should be considered as receiver sites for development, should transfer of development rights be pursued in the Township.

IMPLEMENTATION

- a) Revise the Washington Township Zoning Ordinance to permit higher density (*@ 18,000 square foot per dwelling unit in the rural village areas when centralized water and sewer services are provided and when a cluster development is proposed that is connected to centralized sewer and water service.*)
- b) Revise the Washington Township Zoning Ordinance so that certain non-residential land uses are permitted as special exceptions. Traffic generation from non-residential uses should not be more than double that of a single-family home.

LAND USE PLAN GOAL

Prevent sprawl development into the rural portions of the Township.

POLICY

Limit extension of municipal sewer systems into the Township to those locations which meet the following criteria: a. the areas are currently developed or represent a logical extension of development from the adjacent Boroughs, b. the area is experiencing failure of septic systems which threatens the safety of the ground and surface

county plans.

- Consistent with the availability of staff, the LVPC will provide technical planning services to municipalities.
- The LVPC will continue to prepare data, technical studies and model regulations that may be useful in the development and implementation of plans.
- Municipalities should incorporate access management in local subdivision regulations.

GOAL

To improve the quality of municipal plans and plan Implementation in the Lehigh Valley.

POLICIES

- Support planning implementation measures authorized by the Pennsylvania Municipalities Planning Code.
- Support complete and high quality technical approaches to solving planning problems in the Lehigh Valley.

IMPLEMENTATION

- Continue planning education programs through the LVPC Local Government Academy.
- Continue to use GIS mapping and various types of computer modeling software to help analyze planning projects and inform citizens and officials of the probable consequences of their planning efforts.
- Support innovative techniques such as transferable development rights, traditional neighborhood development, and conservation development practices...

RURAL TOWNSHIPS

For purposes of this plan, townships with a year 2000 density of under 350 persons per square mile are considered rural. In some areas a population density of 100 persons per square mile is considered rural. By this measure only Lynn Township in Lehigh County would be rural. At 93 persons per square mile in 2000 it is the most rural municipality in the Lehigh Valley...sixteen townships under 350 persons per square mile... Most are experiencing increased development pressure. Unless rural municipalities act to preserve farmland, most will be a lot less rural in 2030.

From the perspective of the LVPC regional plan most urban sprawl in the Lehigh Valley is in rural townships. Its pattern (or lack thereof) follows the text-book definition of sprawl: scattered subdivisions with intervening patches of open space; ribbons of strip commercial development; large residential developments on large lots served by septic tanks and well water. In the Lehigh Valley this hodgepodge of development is further complicated by the occasional presence of slate and cement quarries and isolated commercial and industrial sites.

Most rural municipalities and school districts are struggling with strong development pressure. They are challenged to expand schools, resolve increasing traffic problems, and fix or take over small sewage treatment plants or water systems that fail due to poor design or lack of maintenance. In addition there is growing demand for police, fire services, park and recreation

waters, and c. does not require additional growth inducing infrastructure such as pump plants or satellite treatment facilities. Currently the areas where extensions of the public sewer system meet the above criteria include: West Bangor, portions of Myers Crossing, portions of Locke Heights and Bangor Junction.

IMPLEMENTATION

- a. Work in partnership with the adjacent municipal authorities to review proposed sewer line extensions and ensure that they meet the criteria established by the Township.
- b. Pursue construction of necessary sewer line extensions into those areas adjacent to the Boroughs where there is existing septic system failure and no additional infrastructure beyond sewer line extension is required.

LAND USE PLAN GOAL

Preserve those areas within Washington Township with productive agricultural soils (classes I, II, and III) and that are currently in agricultural use or have the potential to be farmed.

POLICY

Strengthen farmland preservation efforts in Washington Township.

IMPLEMENTATION

- a. Enact effective agricultural and open space zoning, and other strategies that all together will keep 70% of the land in agriculture & open space and 30% available for future development.
- b. Pursue purchase or dedication of Agricultural Conservation Easements and development rights to ensure that farmland is preserved over the long term.

POLICY

Encourage agriculturally related businesses as accessory uses within the agricultural preservation district.

facilities. Rural communities need to reevaluate their comprehensive plans and zoning ordinances to determine more effective measures to retain their rural character.

GOALS

Reduce urban sprawl in rural townships and retain the rural character of rural areas.

POLICIES

- Preserve farmland and natural features through strong zoning regulations and public acquisition of property.
- Rural villages should be the preferred location for local convenience retail establishments.
- Refrain from development of public sewer and water systems except where necessary to re-solve existing health problems.
- Practice conservation design measures in sub-division development.
- Plan and zone for land uses that are appropriate in rural areas. Avoid planning and zoning for regional commercial, industrial and institutional uses.
- Oppose strip commercial planning and zoning practices.

IMPLEMENTATION

- Rural townships should adopt comprehensive plans that are in accord with the requirements of the Pennsylvania Municipalities Planning Code. Such plans should be updated at least every ten years.
- Zoning ordinances, subdivision regulations and sewer plans should be consistent with the municipal comprehensive plan and the county comprehensive plan.
- Subdivision regulations should be amended to include access management measures, assure street connectivity and provide for sidewalks and bikeways.
- All rural townships should adopt impact fee ordinances to help defray some of the costs associated with traffic impacts of new developments.
- All rural townships should adopt an official map to help reserve sites for future road improvements, parks and other public facilities.
- Rural zoning and subdivision regulations should encourage conservation design practices in the subdivision of land that involves natural features recommended for conservation.
- Rural townships should invest in local road improvements and local open space acquisition programs..*** Source: LVPC, 2004, 2030 Comprehensive Plan, Lehigh and Northampton Counties, PA

IMPLEMENTATION

Zoning regulations for the agricultural district should be amended to permit certain commercial uses that are in support of agricultural activities and are in scale with and subservient to the agricultural use of the property.

LAND USE PLAN GOAL

To protect important watershed resources from pollution and to prevent soil erosion of steep slopes in the watershed.

POLICY

Watershed protection is critical on the slopes of Blue Mountain and along Greenwalk Creek, where commercial fish hatcheries and water bottling activities rely on high water quality.

IMPLEMENTATION

- a. Expand the Conservation zoning district to include the slopes of Blue Mountain and lands adjacent to Greenwalk Creek, as indicated on the proposed 2030 Comprehensive Land Use Plan Map.
- b. Revise the Zoning Ordinance regulations to ensure that permitted land uses, minimum lot sizes and creek setbacks support watershed protection goals.
 1. **Rural Residential** – Rural residential land use is provided for in areas of the Township where public sewer and water service is not planned in the future. Roads, soils and slopes in these areas are not suitable for intensive residential development.

[THERE IS A NEW TABULAR FORMAT FOR REMAINDER OF THIS PLAN REPORT SECTION]

The format for the remainder of this plan focuses on the Washington Township Land Use Plan without a comparable section from the Lehigh Valley Comprehensive Plan

Rural Residential Characteristics

- Open space conservation through use of conservation design development should be encouraged. In this development type, the least suitable areas for development (conservation areas of steep slopes, creeks and floodplains) are deducted from the available development area. Important open space resources are identified and development is directed away from those portions of the site. The community determines in its Zoning Ordinance whether a portion of each of these developments is required to be set aside in permanent open space.

- Centralized sewer and water systems are not recommended for serving this area, to prevent intensive development.

LAND USE PLAN GOAL

Provide for a variety of attractive residential neighborhoods.

POLICY

In transition areas between protected agricultural areas and conventional residential neighborhoods, establish a rural residential zoning district.

IMPLEMENTATION

- a. The rural residential district shall require conservation design practices that preserve natural features and ensure that a portion of the property remains in permanent open space.

- b. Density and design requirements in the rural residential district shall be appropriate for on-lot sewage disposal and private wells.

POLICY

Retain the character of single family residential neighborhoods.

IMPLEMENTATION

Review and amend the Zoning Ordinance, as necessary to discourage multi-family housing in the low-density residential district.

LAND USE PLAN GOAL

To provide for employment generating commercial, industrial and manufacturing uses in select locations within the Townships to improve its tax base and provide employment for area residents.

POLICY

Encourage major industrial, manufacturing and related land uses to gravitate toward prior mining lands and existing manufacturing areas that are designated on the Comprehensive Plan Land Use Map as B-3 Business areas.

IMPLEMENTATION

- a. Revise the Zoning Ordinance to permit extractive, disposal and manufacturing uses in the area designated on the Land Use Plan for B-3 area. Enact appropriate zoning controls to ensure that these uses are adequately buffered from adjacent properties in terms of visual and other sensory impacts, as well as protection of groundwater.

LAND USE PLAN GOAL

To provide opportunities for new commercial and light manufacturing uses as an expansion of existing business areas.

POLICY

To regulate the access and development of the existing and proposed continuation of the business strip to the west of Bangor along SR 512 in Washington Township to the Washington Township border with Plainfield Township.

IMPLEMENTATION

- a. Enact access management policies along major arterials to reduce

traffic conflicts and provide for smooth traffic flow.

- b. Standardize definitions for non-residential land use activities based on the North American Industry Classification System, United States, 2002, Executive Office of the President, Office of Management and Budget, as updated from time to time.

POLICY

Designate specific "B-4" Business areas proposed by the 2030 Comprehensive Land Use Plan Map as areas with retail commercial and light manufacturing.

IMPLEMENTATION

Revise commercial district regulations in the Zoning Ordinance to permit a mix of commercial and light manufacturing uses within the commercial district.

LAND USE PLAN GOAL

To encourage the development of small & medium-scale, tourist business activities that support rural atmosphere in Washington Township.

POLICY

Encourage development of seasonal homes and tourism businesses in Washington Township.

IMPLEMENTATION

- a. The township should work with adjacent communities to promote bed and breakfast, farmer or produce markets, equestrian centers and villages as destinations for people visiting the area.
- b. The township should plan regional connections with trails and link creek corridors for a regional open space network for its residents and to bring people into the area.

LAND USE PLAN GOAL

Adopt standardized land use categories consistent with those of adjacent communities.

POLICIES

Washington Township land use map shall reflect new and revised land use categories furthering the following general goals: 1) farmland and open space preservation, 2) a range of residential densities, 3) compatible land uses with adjacent communities, 4) a diverse economic base with areas for commercial and manufacturing uses and 5) meeting requirements of the Municipal Planning Code.

IMPLEMENTATION

The following land use categories and/or policies shall be incorporated as part of the Washington Township Plan Text and where appropriate on the Washington Township Comprehensive Plan Land Use Map:

1. **Conservation** – These areas are comprised of the creeks, streams, floodplains, woodlands, wetlands, steep slopes (25% and above). These areas represent a system of natural open space that should be protected and conserved.
 - a. **Blue Mountain Conservation Area** This is a special conservation designation for the slopes along Blue Mountain, an identified natural resource of statewide significance.
 - b. **Conservation Characteristics**
 - These areas should be preserved in private, semipublic or public open space.
 - Zoning and Subdivision and Land Development regulations should address special characteristics or these areas and their importance as open space areas by special lot size, setback and net out provisions to ensure protection of its natural features.
 - Natural vegetation should be preserved, steep slopes left undeveloped and buffer areas preserved or planted along creeks and waterways. These practices assist in maintaining good water

quality and may leave areas for future greenways.

2. **Public Parks/ Recreation** – These areas include existing and proposed public parks and recreation areas, preserves and game land.

Public Parks and Recreation Characteristics

- These areas may include neighborhood or regional park facilities. Currently each community contains separate park facilities for its residents. Bangor Area School District facilities are available on a limited basis for community leagues and some school sports activities take place on community park land. Park and recreation needs of each community should continue to be met within the individual community boundaries.

- The need for an indoor recreation facility has been discussed and should be pursued at a regional level through the planning group or Slate Belt Council of Governments. There may also be a need for combined play fields that serve regional leagues.

- Trails, greenways and pedestrian or bicycle paths should be identified that could link these facilities to one another and to the larger community. Trails may also be extended to link to regional trails such as the Plainfield Township trail and the Appalachian trail that are nearby.

3. **Agricultural Preservation** – This area represents productive agricultural land in Washington Township. This land use designation recognizes the importance of preservation of existing farms and agriculturally related activities. This area should be included in an effective agriculture zoning district where extension of municipal services are discouraged, only limited development may occur and purchase of development rights is encouraged. The goal of agricultural/open space preservation in the Washington Township Land Use Plan is to retain 70% of the existing farm and open space land.

Agricultural Preservation Characteristics

- Effective Agricultural Zoning should be adopted into this portion of Washington Township

- Purchase of agricultural easements and development rights should be targeted to the large and contiguous properties in the agricultural preservation area.

4. **Suburban Residential** – This portion of the plan area is designated to provide for single family homes at a density of 1 to 4 dwelling units per acre, depending upon the availability of municipal sewer and water service and located within existing neighborhoods or the designated GROWTH AREA.

Suburban Residential Characteristics –

- Centralized sewer and water systems may serve portions of this area.

- New residential neighborhoods and older single family neighborhoods are included in this land use category.

- Walking paths should be required to enable residents to walk to town centers, local parks and to other portions of the neighborhood.

5. **Urban Residential** – This area provides for single family detached, single family attached and multi family housing at up to 5 units per acre.

Urban Residential Characteristics

- These areas are located within the existing neighborhoods and close to the center of the Boroughs. Municipal services, including sewer, water sidewalks and proximity to parks and shopping areas.

- This area provides for a mix of housing types and densities.

- Traditional development forms should be encouraged through design guidelines that describe characteristics of traditional neighborhood design.

6. **Village Center** – These areas provide for a mix of retail, service and office commercial uses, and densities of residential development.

Village Residential Characteristics

- A mixture of small scale and neighborhood serving commercial uses can be incorporated into areas of residential land use. Often residential uses are side –by –side, above or behind commercial establishment.

- Certain land uses should be discouraged in the villages because they are incompatible with the residential land uses. Examples of some of these uses include adult oriented book stores or adult entertainment uses and commercial uses that generate substantial traffic or parking requirements.

- Development within these village areas are pedestrian oriented with parking to the rear or side, enhanced appearance at the street and connected walkways.

7. **General Commercial/Business** – provides a variety of retail and service commercial use, professional offices and light manufacturing. The scale of these operations is small to medium in size.

General Commercial/Business Characteristics

- This area contains traditional retail commercial uses such as stores, banks, restaurants that serve the larger community and benefit from a compact business district.

- In some cases, manufacturing uses may be included in the business district areas, either as stand alone structures or

on the upper floors or rear of larger commercial structures.

8. **General Industrial/Business** – provides for a variety of medium to large scale industrial and business uses, including manufacturing and large business centers

a. General Industrial/Business Characteristics

- These areas are planned as industrial or business parks in areas that have previously been used or similar types of uses.

b. Extractive Industrial Characteristics

- These areas provide for extraction of minerals and general industrial uses.

- a. These areas are located outside of the commercial and residential areas and require truck and in some cases, rail access.

- b. No new industrial or extractive sites are proposed in the plan, however there are significant slate mining and former manufacturing sites which have been abandoned or are not being utilized that are included in the Keystone Opportunity Zone for re development as employment and manufacturing centers.

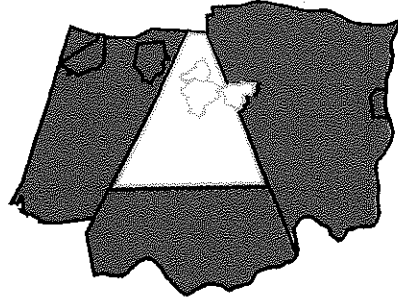
Solid Waste/landfill – This area is designated to receive yard waste, facilitate recycling and accommodate limited land fill deposits serving only Washington Township.

Solid Waste/Landfill Characteristics

- a. This area will be located within a previously mined or disturbed site and provide an area for safe and sanitary disposal of waste materials.
 - b. All current regulatory practices and associated fees will be adhered to and all efforts made to minimize impacts from traffic, dust, noise, smell on the communities it abuts.
9. **Forest Stewardship** - Although it is possible under Pennsylvania Law to harvest wood from almost any land in the Commonwealth, management of forest resources in Washington Township is recommended. Therefore this plan proposes that land owners participate in the PA- Forest Stewardship Program. This Program identifies issues to consider when managing a forest and/or harvesting wood. The Pennsylvania Forest Stewardship Program provides the forest property owner with a procedure for identifying wildlife habitats, areas for human enjoyment, and the needs for immediate and future monetary return from the forest. This Program helps the property owner to understand the limitations of forest property and the need to balance objectives that are private and public in nature.
10. **Tree Planting and Tree Preservation** – Preservation and planting of trees should be used as a means of reducing storm water runoff. This includes the provision of street trees in the public rights-of-way in new subdivisions and land developments. Landscaping on individual properties should also be encouraged to reduce storm water runoff.

Local Comprehensive Plan Sections

Central Slate Belt Region



CHAPTER TWO OF WASHINGTON TOWNSHIP COMPREHENSIVE PLAN TRANSPORTATION

**Boroughs of Bangor, Roseto,
East Bangor, Township of Washington
in County of Northampton, Pennsylvania**

This report was financed, in part, by a grant from the Pennsylvania Department of Community and Economic Development under the Land Use Technical Assistance Planning Program. This program is part of a Multi-municipal Planning Program including the Boroughs of Bangor, East Bangor, Roseto and the Township of Washington.

Township of Washington Planning Commission

Rodite & Pandl, LLC, Community Planners

Comprehensive Plan Planning Chart for Central Slate Belt Region

Boroughs of Bangor, Roseto, East Bangor, and Township of Washington, Northampton County, PA 2004

<p style="text-align: center;">Lehigh Valley Comprehensive Plan Lehigh and Northampton Counties, PA (The column below is taken from the Lehigh Valley Planning Commission 2004 report entitled <u>Comprehensive Plan, Lehigh and Northampton Counties, PA</u> <u>The Lehigh Valley ... 2030</u>)</p>	<p style="text-align: center;">Central Slate Belt Region Plan Boroughs of Bangor, Roseto, East Bangor, and Township of Washington (also referred to as the BREW Region) This Section Focuses On The Township of Washington</p>
<p>TRANSPORTATION</p> <p>HIGHWAYS</p> <p>Travel across the Lehigh Valley continues to grow at a rate much greater than factors that attribute to that growth, including population, employment, licensed drivers, and vehicle registrations. Federal Highway Administration statistics show that growth in vehicle miles of travel nationally correlates closely to the growth in gross domestic product. This correlation implies that people make more discretionary trips as their disposable income increases. Other factors that contribute to growth in travel nationally and locally include an increasing number of two and three (or more) vehicle households, higher female participation rates in the work force, and a rapidly increasing elderly population that is becoming more mobile. At the same time, more Lehigh Valley residents are driving alone (up 22% over 1980 levels) while a smaller percentage are carpooling and using transit. In fact, driving alone to work was the only mode choice that increased its share over the twenty-year period. Walking to work remains the most significant of the modes not using a personal vehicle, though its share has dropped by 47% over the last twenty years. The large majority of walking continues to take place in the three Lehigh Valley cities. In 2000, 64% of all Lehigh Valley walk to work trips took place in the three cities.</p> <p>While vehicle miles of travel have grown rapidly, increases in the transportation network have not kept pace. Over the past fifteen years, the Lehigh Valley has seen notable highway improvements, including the completion of I-78, the extension of Route 33, the relocation of Route 222 (which is under construction), and widening of Route 512, Airport Road and Schoenersville Road. In fact, the regional road network is complete with the exception of the American Parkway Bridge across the Lehigh River in Allentown City. These improvements, however, were not enough to keep morning and afternoon peak hour congestion from growing in the Lehigh Valley. The ability to respond to this congestion by providing capacity improvements has been constrained by the lack of adequate Federal and state funding.</p> <p>Along with congestion, safety is a major transportation issue. Nationally, approximately 42,000 Americans die annually in traffic crashes; in Pennsylvania, about 1,500 deaths per year occur on highways; and in the Lehigh Valley, an average of 32 deaths occur annually. While the rate of fatalities per million vehicle miles traveled is steadily falling, projects that increase</p>	<p>TRANSPORTATION/CIRCULATION PLAN</p> <p>GENERAL</p> <p>This Plan is prepared consistent with the Pennsylvania Municipalities Planning Code, Article III, Comprehensive Plan, section 301 (a) (3), September 2000.</p> <p>The transportation element of a comprehensive plan should identify how efficiently the existing network performs, identify hazardous conditions and outline an action plan to address deficiencies. The focus of this work element is to:</p> <ol style="list-style-type: none"> 1. Define the existing transportation network 2. Identify current deficiencies 3. Identify future congested areas 4. Recommend a strategy to address transportation needs consistent with the land use plan <p>Planning for the development and needed transportation go hand-in-hand because development generates traffic and transportation supports the community's vision. The location and character of</p>

safety are an important priority in the Lehigh Valley. Using PENNDOT crash data, 21 corridors were identified as having significant crash problems in the Lehigh Valley. The transportation planning program conducted by the Lehigh Valley Planning Commission in conjunction with the Lehigh Valley Transportation Study (LVTS) prioritizes and programs highway, bridge, and transit improvements.

The Lehigh Valley Transportation Plan: 2003–2022 is the long range transportation plan for the region. Its purpose is to guide transportation decisions over the life of the plan and to outline the transportation planning process. The Plan is fiscally constrained and divided into a short, medium, and long range element. The highway element of the plan directs funding in the short term to the construction of three high-priority projects: Route 222 relocation in Upper and Lower Macungie townships, the extension of the American Parkway, and the Route 412 improvements in Bethlehem City. The medium range element focuses on network maintenance and addressing safety issues. The long range element continues the focus on network maintenance and safety but begins the widening of Route 22, from the bridge over Mickley Road to the Route 22 bridge over Irving Street...

Financial resources for transportation improvements are limited. Federal planning regulations require that both transportation improvement programs (four year programs) and long range transportation plans (twenty year plans) be fiscally constrained. This means that the cost of the projects included must not exceed a reasonable estimate of available funds over that time frame. In Pennsylvania, allocations are made to each of the planning areas in the state on a basis of transportation system needs. Currently, needs are defined in terms of various indicators such as population, lane miles, vehicle miles of travel, bridge ratings, and rail crossing crash history. The Lehigh Valley Surface Transportation Plan: 2003–2022 forecasts approximately \$2 billion in transportation funding being available over that twenty-year period, with \$1.3 billion going to highways, \$330 million to bridges, and \$322 million to transit. Even at that level, revenues received from the Federal and state governments will not resolve all of the region's transportation needs...

In May 2004, the U.S. Congress was considering the reauthorization of the Transportation Equity Act for the 21st Century (TEA-21). The reauthorization process will be monitored closely to determine the impact on transportation funding since the large majority of funding in the Lehigh Valley 2003 TIP comes from Federal (75%) and state (23%) sources. Only 2% of the funds for projects currently in the TIP come from local sources. One way to further meet the transportation needs of the region would be to increase the local share for financing needed improvements. Another way to conserve scarce financial resources is for local officials to give more consideration to the transportation infrastructure in their land use decisions. The shortage in transportation funding makes it important for transportation decision-makers to scale improvements appropriately. In some instances transportation management strategies may reduce peak hour traffic and

transportation help determine the general direction of growth and are factors in the location of residential, commercial and industrial development, as well as community facilities. However, as the BREW communities continue to grow, the role of the transportation system will change and the quality of transportation services will be challenged.

EXISTING NETWORK

HIGHWAYS

Central Slate Belt Regional streets and roads are functionally classified and they are further defined and discussed below:

- 1. Expressways** –There are no expressways in Washington Township and none are proposed in the Central Slate Belt Multi-municipal 2005 to 2030 Plan.
- 2. Arterials** Provides access between major parts of counties, cities, towns and other major activity centers. Major Arterials are generally four-lanes, with access points controlled by traffic signals. However the Arterial roads in the Central Slate Belt Region are not designed to be four lane highways. They are two lane roads and they may be referred to locally as Connector Arterial roads. These highways will have posted speeds generally between 35-45 miles per hour, however, some sections may be posted at 55 miles per hour.
 - Arterials (connector roads) in four Central Slate Belt Municipalities include: Route 191, Route 512 (Blue Valley Drive), and Route 611.
- 3. Collectors** Provide connections between local streets and arterial highways; they

make more efficient use of existing highway capacity. Numerous strategies are available, including mass transit, carpooling and staggered work hours. The LVPC implemented a carpool program and park-and-ride program during the early 1980s. However, response to the program was poor. In 1988, the LVPC tried to implement a staggered work hour program in the LVI Airport area, but received little interest from major employers. Based on experience here and in other metropolitan areas, transportation management strategies appear to be best suited as a supplement to projects that add capacity by extending the life of the improvements.

Intelligent Transportation System (ITS) strategies can enhance the efficiency of the existing network by providing real time information to the motorist through means such as variable message signs and highway advisory radio. ITS strategies were used during the 22/Renew reconstruction project and were a major factor in minimizing congestion during construction. LVTS must investigate the use of these strategies in the future to extend the capacity life of the existing roadway network. In addition to developing a balanced capital program, transportation planners are required to balance the need to build roads and the need to protect other public interests. A number of Federal and State laws regulate highway construction relative to environmental features, historic structures, agricultural operations, and displacement of homes and businesses. These laws require that highways minimize and mitigate environmental damage and disruption to communities.

They also require lengthy and expensive planning and design studies that slow the highway construction process. Major capacity improvements take an average of 12 to 15 years to proceed from the planning stage to construction. Some major local projects, including I-78 and the Route 33 extension, took twice as long to come to fruition.

Providing good access to development is another highway planning challenge. Good access is necessary to attract business in areas designated for economic development. It is also important to existing industrial parks and central business districts to maintain movement of goods and accessibility to workers and consumers. Finally, good access is necessary in residential areas for smooth traffic flow and convenience to work, shopping and other trip destinations.

LVPC TRANSPORTATION GOAL

To provide a safe, well-maintained road network that facilitates the movement of traffic.

POLICIES

- Highway and bridge projects that improve safety and maintain the existing system are a program priority.
- Upgrade unsafe roads and intersections with substandard design and confusing traffic patterns to current design standards.

provide access for business areas. Collectors are two-lane roads with 35 miles per hour posted speeds. Because collectors often provide the “bridge” between commercial and residential developments, more access points are often found than for arterials but fewer than Local. Collectors with substantial residential access should be posted at 25 miles per hour. Maintaining safe driving speeds is critical for the safe movement of pedestrians and vehicles.

- Collectors in Washington Township are listed in Chapter 3 of this report.
- **4. Local Streets and Roads** provide direct access to abutting residential properties and channel traffic to other streets. Local roads are generally posted at 25 miles per hour. Maintaining safe driving speeds is critical for the safe movement of pedestrians and vehicles. Traffic calming is critical to protecting neighborhood children and activities.
- Local Roads in Central Slate Belt Regional Study Area: All remaining streets not already classified as arterial or collector streets.

PUBLIC TRANSPORTATION

Lehigh and Northampton Transportation Authority (LANTA) provides fixed route bus service with posted stops in the study area (*one stop is located in the Borough of Roseto and the second stop is in the Borough of Bangor*), however, the LANTA bus will stop for passengers anywhere along their route from Pen Argyl to Bangor on SR 512.

- Rehabilitate or replace deficient bridges.
- The system of collector and arterial roads should be up-graded and expanded to cope with increasing traffic.
- Access management practices should be initiated in accord with recommendations of the LVPC report entitled Access Management on Arterial Roads.

LVPC TRANSPORTATION GOAL

To alleviate and mitigate traffic congestion and to provide access to major traffic generators.

POLICIES

- Coordinate development with the availability of road capacity and public transit service.
- Plan, program and build highway capacity improvements in areas recommended for urban development within this comprehensive plan.
- Congestion relief and access improvement projects shall address inter-modal connections where such connections are appropriate.
- Ensure that the arterial and expressway systems accommodate interregional and interstate travel needs.

LVPC TRANSPORTATION GOAL

To construct highway and bridge improvements that are compatible with the built and natural environments.

POLICIES

- Major highway and bridge projects should be studied, designed and constructed in accordance with the most recent environmental regulations.
- Through traffic should be diverted away from existing residential settlements using traffic calming techniques to the degree that alternatives are technically and financially feasible.
- Hydrocarbon and nitrogen oxide emissions from vehicles should not exceed the prevailing Federal standards for clean air.
- Highway projects that add capacity should be appropriately scaled taking into consideration the needs of the traveling public and the built and natural environment.

LVPC TRANSPORTATION GOAL

To promote economy and efficiency in highway planning, design, and function.

The Valley Association for Specialized Transportation (VAST) provides door-to-door service to physically handicapped persons who are unable to use LANTA's fixed route service and other persons requiring special transportation assistance.

PEDESTRIAN AND BICYCLE FACILITIES

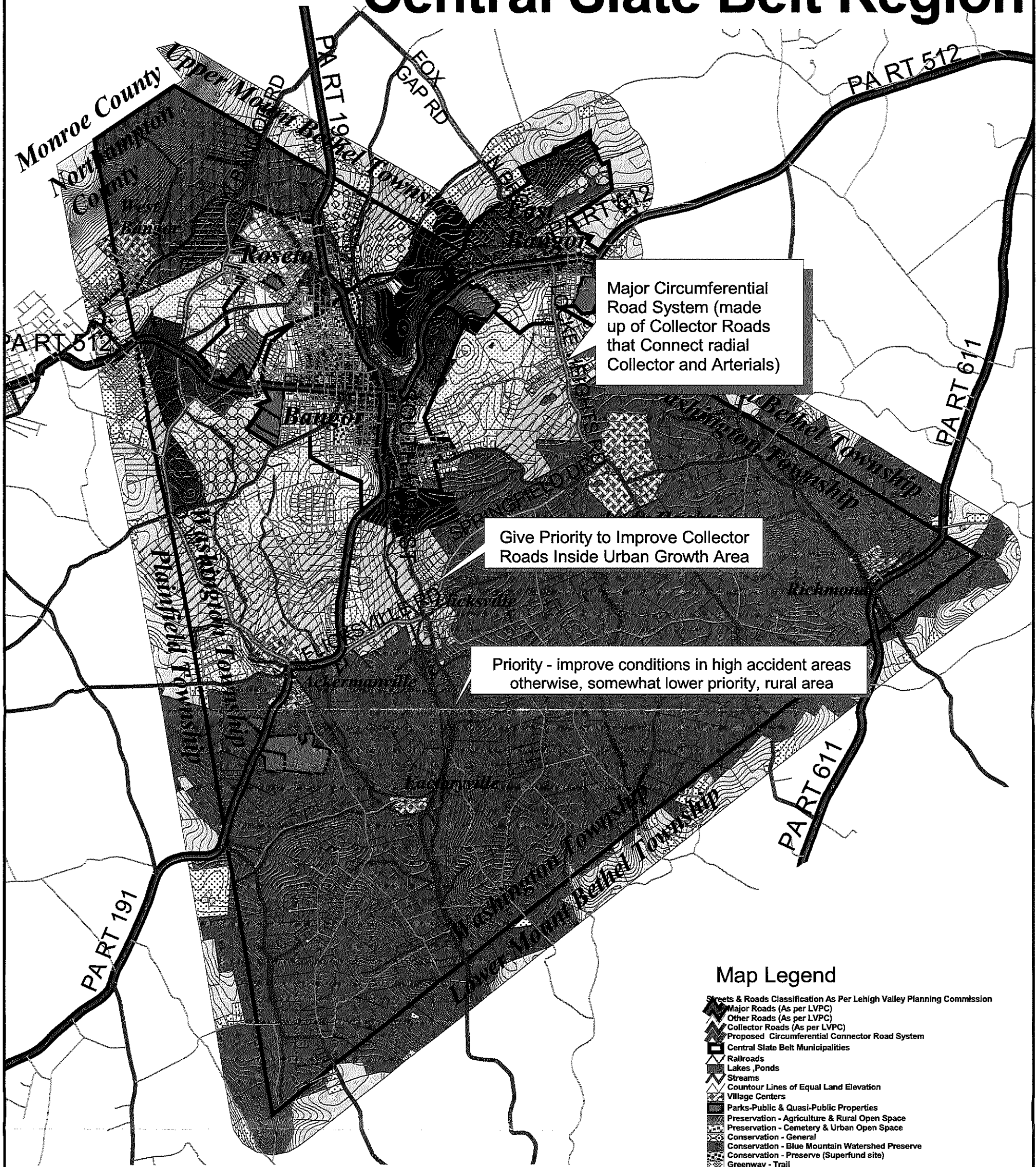
A municipality's pedestrian and bicycle paths should be designed to provide residents the opportunity to move safely about the area by non-motorized means. This valuable transportation resource enables children and adults alike to access education facilities, the community center(s) and neighborhood parks safely without the need for motorized vehicles. The path system should, where practical, be connected to adjacent municipalities. Where possible, the path system should be physically separated from the road system. When it is necessary for pedestrians, bicycles and vehicles to share cartways, extra attention to safety is necessary with cross walks, pedestrian activated signals and cautionary signage.

CURRENT DEFFIENCIES AND CONCERNS

Background studies for this Plan identified existing conditions and deficiencies from secondary data sources. Three Crash Corridors were identified in the Study Area. Two were high frequency crash corridors, where the number of reportable crashes is higher than the statewide average for similar roads throughout the state. There is also

REGIONAL TRANSPORTATION PLAN

Central Slate Belt Region



Major Circumferential Road System (made up of Collector Roads that Connect radial Collector and Arterials)

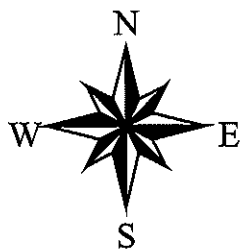
Give Priority to Improve Collector Roads Inside Urban Growth Area

Priority - improve conditions in high accident areas otherwise, somewhat lower priority, rural area

Map Legend

- Streets & Roads Classification As Per Lehigh Valley Planning Commission
- Major Roads (As per LVPC)
- Other Roads (As per LVPC)
- Collector Roads (As per LVPC)
- Proposed Circumferential Connector Road System
- Central Slate Belt Municipalities
- Railroads
- Lakes, Ponds
- Streams
- Countour Lines of Equal Land Elevation
- Village Centers
- Parks-Public & Quasi-Public Properties
- Preservation - Agriculture & Rural Open Space
- Preservation - Cemetery & Urban Open Space
- Conservation - General
- Conservation - Blue Mountain Watershed Preserve
- Conservation - Preserve (Superfund site)
- Greenway - Trail
- Residential, Urban - Low Density
- Residential Urban - Medium Density
- Residential, Urban - High Density
- Residential, Suburban - High Density
- Residential, Suburban - Medium Density
- Residential, Suburban - Low Density
- Residential, Suburban Growth Area - Low Density
- Residential - Rural Low Density
- Business - Central Business District
- Business - Neighborhood and Highway
- Business - General & Mining
- Business Parks and Industry
- EXISTING LAND USE ADJACENT TO REGION
- Agricultural & Vacant
- Offices
- Parks & Other Outdoor Recreation
- Public & Quasi Public
- Residential
- Retail/Commercial
- Transportation, Communications & Utilities
- Warehousing/Distribution

This map was financed [in part] by a grant from the Commonwealth of Pennsylvania Department of Community and Economic Development.



Rodite & Pandl, LLC,
Community Planners &
Landscape Architects
Map Date August 2005



Central Slate Belt Region - Boroughs of Bangor, Roseto, East Bangor, and Township of Washington

POLICIES

- Preserve arterial roads for their through traffic carrying function by reducing on-street parking and curb cuts for driveways through access management techniques.
- Travel demand on existing facilities should be met to the greatest degree possible with low cost improvements that meet the needs of the project.
- Wherever feasible, transportation management strategies should be implemented to reduce peak hour travel demand.
- Intelligent Transportation System strategies should be implemented where appropriate to maximize the efficiency and safety of the current highway system.
- The average trip length should be minimized through compact land use patterns and mixed use developments.
- Adequate financing mechanisms should exist to pay for needed improvements and maintenance.
- As part of highway maintenance projects, shoulders should be widened to safely accommodate motor vehicles, bicyclists, and pedestrians.
- Improve sidewalk, trail, and local street connectivity to reduce the number of vehicle trips taken on the major highway network.
- Employ context sensitive design strategies to assure transportation projects are appropriately scaled and designed to fit their location.

PUBLIC TRANSPORTATION

The Lehigh and Northampton Transportation Authority (LANTA), was formed by Lehigh and Northampton counties in 1972 to provide public transportation services for the inhabitants of the Lehigh Valley. LANTA's operations are comprised of two operating divisions – Metro and Metro Plus. The Metro division provides fixed-route services along twenty-six routes and carries about 4.3 million trips annually. It serves the Lehigh Valley metropolitan area including the cities of Allentown, Bethlehem, and Easton and their surrounding environs. The Metro Plus division provides door-to-door service for the region's elderly and those with disabilities. This coordinated transportation system is operated through contracts with private transportation providers and provides nearly 500,000 trips annually. Transit service is essential for providing mobility for the disabled, elderly, low-income individuals, and those not owning automobiles. Other potential benefits of mass transit include improved air quality, reduced congestion, and more efficient use of existing road capacity. Current land use development patterns have not favored the use of public transportation.

one severe crash corridor, which is a corridor that experience more than (4) four serious crashes over a five-year period. There are two crash corridors in Washington Township. One is along Blue Valley Drive - State Route 512. The other crash corridor is located along S.R. 191 in Ackermanville in the vicinity of the sharp curve.

Five (5) bridge projects were identified in the Lehigh Valley Transportation Study's (LVTS) Long Range Transportation Plan (LRTP). The LRTP generally establishes the transportation priorities over a 20-year period. It is broken into short, medium and long time periods. The short period time frame is four (4) years and it is the equivalent to the Transportation Improvement Program (TIP). Any project that receives State of Federal funding must be on the TIP. Of the five (5) bridge projects, four (4) are programmed on the TIP. No other transportation projects in the Central State Belt municipal area are included in the TIP or the LRTP.

TOWNSHIP OF WASHINGTON TRANSPORTATION AND CIRCULATION GOALS

- A. A transportation network that provides for safe and efficient circulation of people and goods in Washington Township within and through the Central State Belt Municipalities.***
- B. A roadway network that provides good access to***

Development densities in the Lehigh Valley are low and development is spread out rather than concentrated in high density core areas. Populations and jobs are moving out from the cities to suburban locations. This has resulted in an increase of suburb-to-suburb commutes, increasing travel times and generating significant obstacles for public transportation to overcome. While transit usage in the urban core remains high, most new system demand comes from these less financially productive outlying areas. LANTA's Strategic Plan 2004–2015 focuses on the maintenance of core urban area services, but with an emphasis on connections to job centers at the fringe of the Lehigh Valley's growing urbanized area. Route frequency has increased, routes were extended into suburban job locations, late night operations were initiated, and the reinstatement of Sunday service occurred to meet market demand. The Strategic Plan will continue to guide system improvement efforts as Lehigh Valley demographics change.

An intermodal center was developed in the City of Bethlehem to serve as a transportation hub. The center provides a protected terminal and transfer center for transit passengers and includes items of convenience such as ticket vending, electronic bus information, beverages, and newspapers. Similar facilities are being developed in Allentown and Easton

A sufficient supply of convenient, affordable, and reliable inter-city bus service exists to popular destinations such as New York City and Philadelphia. This service is provided by private, unsubsidized bus operators Carl R. Beiber and Trans-Bridge Lines, Inc.

LVPC TRANSPORTATION GOAL

To promote economy and efficiency in public transportation planning, design, and function.

POLICIES

- Fixed route transit service should be provided only in those areas where service is financially feasible through operating revenues and necessary subsidies.
- Privatization of mass transit service should be considered when such service is provided at equivalent service levels with lesser public subsidies.
- Public transportation equipment and facilities should be replaced and upgraded as needed to provide safe, reliable and cost-effective service.
- Fixed route service scheduling and routing should be evaluated and adjusted as needed to produce efficient and market-responsive service.
- When feasible, mass transportation should be used to mitigate short term, high volume traffic destinations such as special events rather than building permanent capacity improvements.

business areas and to areas designated as urban, suburban, and village residential areas.

- C. A roadway network that seamlessly interconnects the four Central Slate Belt Regional communities as if they were all one community.***
- D. A way and means of achieving improvements to the Central Slate Belt Regional Arterial and Collector street systems in regard to improved safety, widenings, alignment improvements, and extensions. (Policy #1- Create an official map for the Central Slate Belt Regional and/or each community within the Region. Policy #2- Create a multi-municipal transportation improvement advocacy sub-committee.)***
- E. A roadway system that efficiently serves proposed business areas with a minimum of impact upon residential areas.***

POLICY #1- Require business development to help fund improvements to provide the shortest, safest connections to the arterial road and/or railroad systems. This could include tax increment financing of improvements (TIF). TIF financing will permit new businesses to extend their payment for such improvements over an extended time period and permit local governments to partner in that payment process by designating a part of the business property tax payment for the payment of such

• Support development of park and ride lots where there is documented demand for such facilities.

• Major shopping and employment facilities should locate where transit service exists or is feasible.

• Site plans should include features that make the use of mass transit easy, safe and convenient.

• Higher density housing and employment facilities should be developed along transit service routes. In the portions of the LANTA Market Area recommended for urban development, a minimum density of five dwelling units per acre should be developed.

• Maintain and update facilities to keep up with new technologies.

LVPC TRANSPORTATION GOAL

To provide adequate mobility for the elderly, the handicapped, the poor, and those who do not own an automobile.

POLICIES

• Provide convenient and reliable fixed-route service between higher density residential areas, major employment concentrations, important shopping areas, key government facilities, medical facilities, and other activity areas.

• Provide coordinated specialized public transportation for people who cannot use conventional bus services.

• Meet basic transportation needs, support desired economic and environmental goals, and appeal to an increasing number of people.

• Shopping, workplace, government, and housing facilities designed for the transit dependent should be sited at locations where transit service exists or is feasible.

• Mass transit facilities should meet the requirements of the Americans with Disabilities Act.

LVPC TRANSPORTATION GOAL

To support expansion of the public transit system and to advocate transit use as an alternative to single occupant driving.

POLICIES

• LANTA should continue to offer and improve a wide range of service options to meet a variety of mobility needs in the Lehigh Valley.

• Evaluate and incorporate Intelligent Transportation

improvements.

POLICY #2- Pursue the shortest possible connections between business areas and the arterial system.

POLICY #3- Seek State and Federal assistance with improved access to business areas.)

F. Continue to use the street and road standards for width, depth, drainage, and construction standards as per the existing Washington Township Subdivision and Land Development Ordinance.

G. Annually identify areas of road safety and walkway concerns via a committee that includes Township Officials, Police Department representatives, school district school bus representatives, Township Engineer, and Council of Governments transportation committee representatives. Include list of improvements on local schedule and list of grant assistance schedule where appropriate. Prepare a seven year road, bridge and pedestrian plan and capital improvement program.

H. Improve the safety of the circumferential connector road system identified in the Central Slate Belt Regional Transportation Plan.

I. A bikeway and pedestrian walkway system that connects neighborhoods to business areas and to parks and to other public areas of the community by using sidewalks and existing

Strategies where appropriate to increase efficiencies.

- Fixed route service scheduling and routing should be regularly evaluated and adjusted as needed to produce efficient and market-responsive service.
- Public transportation equipment and facilities should be replaced and upgraded as needed to provide safe, reliable, and cost-effective service.
- Fixed route transit service should be provided only in those areas where service is financially feasible through operating revenues and necessary subsidies.
- Higher density housing and employment facilities should be developed along transit service routes. In the LANTA market area, a minimum density of five dwelling units per acre should be developed.

- Plan, program, and build inter-modal transportation improvements to accommodate current and future travel demand.

LVPC TRANSPORTATION GOAL

To have a sufficient supply of convenient inter-city public ground transportation available to popular destinations such as New York City and Philadelphia.

POLICIES

- This service should be met through unsubsidized privately owned bus operators, to the degree possible.
- New publicly subsidized service should not be established unless established unsubsidized bus operators are unwilling or unable to supply a sufficient convenient service.
- Adequate and convenient terminals should be available for inter-city buses.
- Service opportunities to important destinations outside of the Lehigh Valley should be reviewed on a regular basis or as significant changes dictate.
- Rail rights-of-way should be preserved for future rail reuse if analysis shows that the reestablishment of future service could be advantageous.

RAILROADS

Railroads remain a significant part of the transportation system. Good rail service is essential for the siting of numerous types of businesses. For instance, distribution centers utilize rail service. Railroads no longer play the dominant force in the movement of goods. Based on data from PENNDOT, the amount of rail traffic originating or terminating in the state has barely changed in the last twenty years. In 1984, Pennsylvania originated 62.5 million tons and terminated 54.1 tons, totaling 116.6 million tons. In 2001, a total of 118 million tons originated or terminated in the state. Of this, 60

cartways where necessary and separate greenway trails where possible.

POLICY- All new developments should provide for pedestrian and bike facilities as part of the municipal subdivision and land development requirements

J. *An accessible transportation system consistent with the American Disabilities Act.*

K. *A pedestrian/bikeway system that will provide an alternative to motorized vehicles transportation for short, local trips.*

L. *Increased use of the public LANTA and VAST, public transportation systems.*

FUTURE CONDITIONS

This Washington Township Plan seeks movement toward the above goals and successful implementation of the recommended transportation policies as a means of helping this region to manage growth and support development in the best-suited areas.

For this transportation element we assume that the population and job forecasts are consistent with LVPC's projections. Overall growth in the area is expected to be relatively low; therefore major transportation related problems are not anticipated assuming the existing issues identified are addressed.

GENERAL RECOMMENDATIONS FROM

million tons originated and 58 million tons terminated. These tonnages are in addition to the overhead traffic that passes through Pennsylvania but originates and terminates elsewhere.

In an era where rail service is declining or threatened in some communities, the Lehigh Valley remains in a relatively strong position. The dominant class 1 rail freight carrier in the Lehigh Valley is the Norfolk Southern Railroad, which operates lines that were formerly operated by Conrail. The railroad's Newark, New Jersey to Harrisburg main line passes through the two counties. This line is one of the busiest in the state. A secondary main line extends north from Allentown to the Scranton area. Numerous branch lines provide Norfolk Southern service to area shippers. The Cement Secondary which serves the Forks Industrial area and the C&F Secondary which serves the Fogelsville area are the most prominent of the branch lines. A second class 1 carrier also serves the Lehigh Valley via trackage rights. CP Rail has assumed the operations once provided by the Delaware and Hudson Railway. The area is also served by six short line railroads, RJ Corman-Allentown, the East Penn Railway, the Northampton Development Corp. Railroad, the Belvidere & Delaware River Railroad, the Delaware Lackawana Railroad and the Lehigh Valley Rail Management Railroad (LVRM). These railroads operate several significant rail facilities within the Lehigh Valley. The Allentown Classification Yard is one of the major yards in the Norfolk Southern System. The LVRM operates an inter-modal terminal in Bethlehem. The LVRM also operates a Triple Crown container terminal in Bethlehem.

Three line abandonments have occurred since the 1980s. These abandonments have not resulted in the loss of service to active customers. The Lehigh Valley Rail Freight Study, conducted in 1997, identified three active rail lines potentially at risk. Of the three, the Odenwelder Industrial Track has the greatest potential of being at risk. Assistance may be necessary for assuring continued service. Numerous rail carriers and shippers have been able to use funding available from the Commonwealth of Pennsylvania to upgrade existing track and to construct new track. This funding, available either under the Rail Freight Assistance Program or through the PA Capital Budget process, has allowed new customers to use rail service and has upgraded service for existing shippers. The use of these programs has supported economic development efforts in the Lehigh Valley. The LVPC has assisted economic development efforts by compiling an inventory of available rail-served sites.

Rail abandonments create unique opportunities for the reuse of the right-of-way, when the land does not revert to the adjoining landowners. The relatively flat, linear nature of the rights-of-way often make their retention and reuse advantageous. Lehigh County, Northampton County and several municipalities have acquired abandoned rights-of-way for recreation and other uses. Rights-of-way are well suited for hiking trails and bicycle paths.

No commuter or inter-city passenger service is available in the two counties. The most recent passenger train to actually

CENTRAL SLATE BELT REGIONAL PLAN

Maintaining the transportation system is an expensive task, LVPC estimates \$225,000 per mile, and building new infrastructure is even more expensive, \$2,500,000 per lane mile according to LVPC. We do not recommend pursuing major transportation improvement projects like a "Slate Belt Bypass". Large projects, like a bypass are extremely expensive, negatively impact the environment, and take an extraordinary amount of time to move through PennDOT's Transportation Development Process. A "maintenance first" policy should always be the highest priority in transportation policies.

The availability of Transportation funds is extremely tight. The number of projects exceeds the funding to implement them. For example, the LVL RTP identifies 21 high priority crash corridors. A high priority crash corridor has both frequent and severe crashes. Over the 20-year life of the plan, LVPC estimates that there will be sufficient funding to study about 17 high priority crash corridors and implement safety improvements/recommendations for about 9 of the corridors studied. The three (3) crash corridors identified in the study area are not considered high priority crash corridors.

Fortunately, the Central Slate Belt Region has a distinct advantage over other municipalities if the area combines its resources and speaks with one voice. A

enter the two counties was the Southeastern Pennsylvania Transportation Authority service to Philadelphia which ended in 1981. Passenger service from nearby Phillipsburg, New Jersey to Newark was ended in 1983 by New Jersey Transit. A recent demonstration project in which the Lehigh Valley was made a destination in the Amtrak system, by the introduction of "Amtrak Thruway Express Motorcoach Service" (bus service) to Amtrak's 30th Street Station in Philadelphia ended in 1999. In each case, inadequate ridership resulted in unsustainable financial losses. Two rail passenger initiatives could involve the Lehigh Valley at some future time. The first is an attempt to restore service between Upper Bucks County and Philadelphia. The service would terminate in Shelly (between Coopersburg and Quakertown). A park and ride lot would be available for Lehigh Valley residents wishing to ride the train. A feasibility study was completed in 2000 for the Bucks County Planning Commission. The study identifies one main alternate and two sub-alternative proposals. These alternatives had total capital costs ranging from \$180 million to \$215 million. Ridership was forecast as ranging from 2,620 to 6,809 daily trips, depending on the alternative. New trips generated by the proposed service would range between 1,703 and 3,200 per weekday. Annual operating deficits of \$1.6 million to \$1.9 million were forecast, differing by alternative. At this writing, an alternatives analysis study is awaiting funding. Some advocates of this line have suggested that it be extended north to Bethlehem using the now-abandoned Bethlehem Secondary Track. The City of Bethlehem is in the process of acquiring this line for the purposes of developing a linear park. The City's actions reduce the feasibility of such routing. In addition the proposals have failed to attract much support by planners and other officials in the Lehigh Valley because they are expensive; ridership estimates are low, and the Lehigh Valley Transportation Study has focused on other local transportation priorities. The second proposal would pass through the north-eastern corner of Northampton County. No service is proposed within the county. The proposal is part of a planned Scranton to New York service. Capital costs for this project are expected to exceed \$150 million. A 1998 feasibility study indicated that annual operating deficits would require subsidy. This project also does not meet the criteria set in this plan for LVPC support.

LVPC TRANSPORTATION GOAL

To have available and dependable rail freight service to support existing businesses and to attract new businesses.

POLICIES

- The private sector should meet this goal to the greatest extent possible.
- Public financial assistance for upgrading railroad facilities should be undertaken in support of economic development opportunities when those opportunities are consistent with the criteria of this plan.

transportation subcommittee should be formed to coordinate the transportation recommendations in this report. The subcommittee should be comprised of equal representation from each municipality. Activities of the subcommittee should include:

- Strengthen relationship with PennDOT and local legislators.
- Monitor progress of TIP projects other projects/studies of concern
- Establish priorities for transportation projects
- Coordinate the implementation of studies and projects
- Allocate revenues from impact fee's collected to priority projects and studies

PROJECTS AND STUDIES FROM CENTRAL SLATE BELT REGIONAL PLAN

1. Implement projects currently on the Lehigh Valley Transportation Study (LVTS) Transportation Improvement Program (TIP).

- a. Ackermanville Bridge
- b. County Bridge No. 189
- c. County Bridge No. 191
- d. Messinger Street Bridge
- e. Oughoughton Creek Bridge

There are five (5) bridge projects that are currently programmed on the current FFY 2003-2006 TIP and the Draft FFY 2005-2008 TIP. The study area municipalities should monitor the programmed projects on a regular basis. The study area municipalities should meet with their local legislators and PennDOT District 5-0

- Public financial assistance for upgrading railroad facilities should be undertaken when such improvements represent a cost-effective means of reducing highway travel.
- Public acquisition, upgrading and operation of rail lines proposed for abandonment should be limited to instances where the investment is cost-effective relative to employment opportunities and tax revenues.
- Land near rail lines which meets the Comprehensive Plan's criteria for industrial siting should be designated for industrial uses.
- Support access to facilities and freight terminals that are otherwise compatible with this plan.
- Provide safe at-grade crossings by upgrading to current safety standards.

LVPC TRANSPORTATION GOAL

To meet recreation, transportation and utility needs by acquiring or retaining abandoned rail rights-of-way.

POLICIES

- Rail rights-of-way proposed for abandonment should be acquired if analysis shows that they are desirable for recreation, road right-of-way, utility right-of-way or other uses.
- Rail rights-of-way should be preserved for future rail reuse if analysis shows that the reestablishment of future service could be advantageous.

LVPC TRANSPORTATION GOAL

To have a sufficient supply of convenient intercity public ground transportation available to popular destinations such as Philadelphia and New York.

- This service should be met through unsubsidized privately-owned carriers to the degree possible.
- Publicly subsidized services should be established only if unsubsidized operators are unwilling or unable to supply a sufficient convenient service and if there are clear and substantial public benefits to be derived from such service.

AIR TRANSPORTATION

Lehigh and Northampton Counties are well served by air passenger carrier, air cargo, and general aviation service. The Lehigh Valley International Airport (LVIA) provides a full range of passenger, general aviation, and air cargo services. In addition, large international airports in Philadelphia and the New York City area are within a two-hour drive of the region. Queen City Airport in Allentown, Braden Airpark in Forks Township, the Slatington Airport, and the Flying "M"

regarding the current status of the projects. For details regarding funding and locations of the projects please see Appendix A: 2005-2008 LVTS Draft TIP. Of particular concern, is the progress of the Ackermanville Bridge. The bridge provides access to the Majestic factory, a major employer of the area.

The LVTS technical committee meets monthly. Each month, the Committee receives a status report on capacity, bridge or maintenance projects. These meetings are open to the public.

2. Perform necessary traffic studies to address identified crash corridors.

Three crash corridors have been identified within the study area, two (2) High Frequency Crash Corridors and one (1) Severe Crash Corridor. For discussion purposes the severe crash corridor will be known as the Downtown Bangor Crash Corridor, while the high frequency crash corridors will be known as the Ackermanville Crash Corridor and the Eastern Gateway Crash Corridor. The Downtown Bangor Crash Corridor should be the first studied due to the severity of accidents. The transportation subcommittee will prioritize the implementation of the remaining crash corridors

The primary focus of each traffic study should be addressing the associated crash corridor. That being said it is important to take a comprehensive approach when examining the impacts of a traffic situation and possible

Aerodrome in Heidelberg Township also serve general aviation aircraft needs... It occupies a 1,000 acre site. The main runway is 7,601 feet long and 150 feet wide. The crosswind runway is 5,790 feet long and 150 feet wide. The airport's tri-level passenger terminal building was opened in 1975. A new departure building, the Wiley M. Post Concourse, opened in 1997. A new flight control tower became perational in 1995. The major issues facing the airport in the next decade include planning for future runways/runway extensions to meet projected demand, and working with local, state, and federal governments to achieve compatible off-airport land use in the noise impact areas. Between 1972 and 2002, total passenger movements at LVIA increased from 368,689 to 798,154. During the same period, operations (take-offs and landings) increased from 111,674 to 142,341. This rate of growth has been moderated by the events of September 11, 2001.

To deal with growth, the LVIA Master Plan assumes that the current level of airline service will remain during the 20-year planning period from 1989 – 2009. Most of the increased passenger activity occurring in the 1990s was accommodated by larger narrow-body aircraft and an increased number of flights by regional jet and turboprop aircraft. The LVIA Master Plan presented four alternatives for meeting airfield capacity needs through 2009. The recommended alternative was the most conservative and could be implemented on the existing airport property - a 2,400 foot extension to the main runway and the construction of a runway parallel to the main runway with a 700 – foot separation distance to the north. LVIA continues to implement elements of the Noise Compatibility Study which includes, land acquisition, soundproofing structures, relocation, acquisition of aviation easements, zoning overlay districts, comprehensive plan revisions, real estate disclosure, revision of building codes and environmental impact review procedures. Queen City Airport is owned and operated by LVIA. The airport is located on a 198 acre tract of land in southwest Allentown, adjacent to I-78 and Lehigh Street. The airport's primary east-northeast/ west-southwest oriented runway is 3,940 feet long and 80 feet wide. The crosswind runway is 3,380 feet long and 80 feet wide. The airport serves as a general aviation airport for private aircraft. Braden Airpark is located on a 71.3 acre Forks Township tract just east of Tatamy. The general aviation airport has a paved runway that is 1,950 feet long and 50 feet wide. The airport was acquired by LNAA from private ownership in 1999. Slatington Airport is a general aviation airport located on a 56.5 acre tract along the Lehigh River in Slatington. The privately-owned airport has a 2,500 foot north-south runway (2,000 feet are paved) that is 30 feet wide. The Flying "M" Aerodrome is located at the base of Blue Mountain in northern Heidelberg Township. The privately-owned airport has a 2,375 foot long by 100 foot wide east-west oriented grass landing strip.

LVPC TRANSPORTATION GOAL

To have air passenger carrier, air cargo and general aviation services that meet the needs of present and

alternatives. Unfortunately, there is no cure all when dealing with these types of issues. Many times a series of trade-offs are required to find the proper balance.

3. Develop Access Management Policy/Plan

In the Commonwealth of Pennsylvania, local municipalities control land use decisions including local roadway design. Sound land-use decisions should be looked at as preventative maintenance for the transportation system. The practice of preventative maintenance techniques on existing transportation infrastructure will increase the overall life expectancy of those facilities and decrease costs over the long hall. Preventative maintenance techniques, like Access Management, are extremely effective in improving safety and efficiency of existing infrastructure. An effective access management plan can actually add capacity to the transportation system while remaining relatively low in cost to implement.

An Overall Access Management Policy Plan should be developed for the entire multi-municipal area. The overall policy plan should outline design standards, best management practices for managing access on to the transportation system, and prioritize areas needing to retrofit access management. Access Management increases safety and

future Lehigh Valley residents and businesses.

POLICIES

- The LVIA should serve as the region's air passenger carrier, corporate aviation, and air cargo airport. All other airports should serve general aviation and specific corporate aviation needs.
- The LVIA should continue to be developed to service existing and forecast demand for scheduled and non-scheduled air carrier services, corporate aviation and air cargo in an adequate, safe and efficient manner.
- The LVPC prefers that all future runway expansions at LVIA be limited to the main airport property bounded by Airport Road on the east, Race Street on the north, and LVIP #3 on the south. Any proposed expansion beyond these limits should be based on demonstrated need and designed to minimize impact on adjoining land uses and the environment in concert with affected municipalities.
- Local highway access to the LVIA should be improved as necessary on the basis of periodic evaluation of access needs in connection with the LVIA Master Plan and in conjunction with the Airport's relationship to the surrounding industrial parks and future development of airport property located contiguous to industrial park uses.

LVPC TRANSPORTATION GOAL

To maximize the compatibility of LVIA operations and nearby land uses.

POLICIES

- Future development in the LVIA area should be compatible with existing and projected air traffic operations.
- Remedial and preventive measures such as land acquisition, relocation, zoning overlay districts, environmental review, soundproofing, revised building codes, real estate disclosure and easement acquisition should be used as needed to promote compatibility with existing and future LVIA operations.
- Encroachment of airport operations on existing residential areas should be minimized. New residential development should not encroach on LVIA or its glide paths.
- Airport operations should seek to minimize the noise impacts on existing developed areas as much as possible without compromising safety.

LVPC TRANSPORTATION GOAL

To optimize to operational efficiency, effective-ness, and safety of the facility.

POLICIES

decreases congestion. It is a relatively low-cost means of improving the transportation system. We recommend that implementation of the Access Management Plan begin in the growth centers.

4. Consider the Advisability of Developing An Impact Fee Ordinance

An Impact fee ordinance should be developed to offset cost of impacts to the transportation system associated with new development. This study should address all requirements for establishing an Impact Fee Ordinance authorized by Act 209 of 1990

5. Create an Official Map

While no major improvements are recommended at this time, eventually as traffic studies are completed and improvement plans are developed, an official map will be helpful in showing the future improvements. The official map should also show Access Management improvements from the aforementioned study.

FUNDING

PennDOT's Project Development Process is long and cumbersome. However, if a municipality is willing to invest some money upfront this process can move faster. Working closely with PennDOT, the transportation subcommittee should be the

- The LVIA should continue to conduct and revise, as necessary, the LVIA Master Plan, FAR 150 Airport Noise Compatibility Study, Regional Aviation System Plan, and any other pertinent studies to ensure efficiency, effectiveness, and safety.

BICYCLES AND PEDESTRIANS

The 2000 census estimated 10,300 commuters that walked to work and another 550 that biked to work, representing 3.8% and 0.2%, respectively, of all Lehigh Valley commuters. Pedestrian safety is an issue in the Lehigh Valley. From 1996 to 2000, 42 pedestrian deaths have occurred in the region. Pedestrian fatalities account for 13% of transportation-related deaths over that five year period. There were 221 pedestrians injured in the Lehigh Valley in 2000, down 11% from 1999. The issue of developing and enhancing the Bicycle/Pedestrian (B/P) network in the Lehigh Valley is one of increasing options available to the public. While most municipalities can and should do a better job of providing pedestrian facilities like sidewalks and bikeways, it is unlikely that such facilities will relieve the Lehigh Valley of its current air quality problems or future congestion problems. Potential users of the B/P network still must contend with low-density land development patterns (resulting in longer trips for all purposes) and a climate that is not always conducive to B/P activity. However, to the degree feasible facilities should be developed to improve the safety and convenience of walking and biking. Properly designed and available facilities will produce more users and increase the frequency of use.

The B/P network is made up of two distinct components. The first encompasses the highway and sidewalk network. Bicycles and pedestrians are allowed on the current highway network with the exception of expressways. Sidewalks are part of the pedestrian network as well. Most sidewalks in the Lehigh Valley are in the cities and boroughs. Highways can be made more B/P friendly by widening and stabilizing shoulders on roadways and keeping them clean to allow for safe bicycling. Existing and potential B/P usage should be taken into account when designing a new road or widening an existing road. In urban and suburban areas without sidewalks municipalities can mandate installation in new subdivisions in the future. Sidewalks must be present, continuous, well-designed, and maintained to provide for a safe and usable network. Consideration should be given to pedestrian crossing phases for traffic signals located in urban areas. In some residential neighborhoods it may be appropriate to consider traffic calming measures to lessen the dominance of the automobile and increase safety. The second component of the B/P network consists of multi-use paths, distinguished from the previous network by protected rights-of-way.

This network is developing but not truly regional at this point. The parts in place have come about primarily through efforts of local municipalities such as Whitehall Township, Palmer Township, and Plainfield Township, and through the development of the Delaware and Lehigh Canal and State

lead on projects at least through the Preliminary Design Phase, which includes all of the feasibility studies. It has been our experience that PennDOT is more likely to fund a project if the municipality is willing to invest their own funds in the planning and design of the project.

ACTION PLAN

Immediate Actions (Less than 1 year)

- **Form Multi-municipal transportation subcommittee**
- **Transportation subcommittee meet with State and County elected officials and PennDOT District 5-0 regarding status of TIP projects**
- **Request bi-monthly or quarterly meeting with PennDOT District 5-0 for status report on TIP projects.**
- **Prioritize recommended studies**

Intermediate Action Items (1-5 Years)

- **Perform Recommended Traffic Studies**
 - **Downtown Bangor Traffic Study**
 - **Eastern Gateway Traffic Study, Bangor**
 - **Ackermanville Traffic Study**
- **Consider Traffic Impact Fee Ordinance**
- **Prepare Overall Access Management Policy/Plan**

National Heritage Corridor (D&L Trail). Emphasis should be placed in developing a series of multi-use paths that Address regional transportation needs. Of particular interest should be “missing links” in the network, with the goal of developing a network of paths that allow users to move around the region. Also, communities should consider linking adjacent residential developments through B/P paths to reduce the dependence on the automobile and to increase alternatives to the user. The LVPC has been involved in identifying and addressing B/P issues. The first effort was a regional Bicycle/Pedestrian Advisory Committee, formed as a sub-committee to the LVTS Technical Committee. The idea in the formation of this group was to look at this topic from a regional perspective. In practice, however, the process did not produce tangible results for a number of reasons, one being that these issues are more able to be identified and addressed from a local perspective. In response, the LVPC asked to be included in citizen traffic advisory committees established in the cities of Bethlehem and Allentown. These committees have identified high priority activities to address B/P issues, primarily safety-related issues. A joint thermo-plastic crosswalk project was developed and programmed for the two cities. The LVPC will continue to work with these committees to develop viable B/P projects and encourage other communities that have B/P issues to set up similar committees. Most Lehigh Valley communities and PENNDOT need to be more active in addressing B/P issues. In addition to the measures mentioned above site design can be accomplished in a way to be more conducive to pedestrian travel. Allowing higher densities and mixed use developments under the zoning ordinance often will shorten trip lengths, thus making them more attractive to be taken on the B/P network. Limiting access points along arterials can also make B/P travel safer along those routes.

LVPC TRANSPORTATION GOAL

To meet recreation, transportation and utility needs by acquiring or retaining abandoned rail rights-of-way.

POLICIES

• Rail rights-of-way proposed for abandonment should be acquired if analysis shows that they are desirable for recreation, road ROW, utility ROW or other uses.

LVPC TRANSPORTATION GOAL

To support bicycle and pedestrian activity and to provide safe access to the transportation system for cyclists and pedestrians in the Lehigh Valley.

POLICIES

• Promote transportation infrastructure improvements such as shoulder improvements, sidewalks, and crosswalks to resolve bicycle and pedestrian safety issues. The appropriateness of bicycle facilities should be considered as part of all road projects.

- Ackermanville Bridge
- County Bridge No. 189
- County Bridge No. 191
- Messinger Street Bridge
- Oughoughton Creek Bridge

Long Term (5 + Years)

- Implement findings from:
 - Downtown Bangor Traffic Study
 - Eastern Gateway Traffic Study, Bangor
 - Ackermanville Traffic Study
 - Access Management Study

Summary of Transportation

Recommendations

1. **Recommendations to improve access and interconnections to all parts of the Multi-municipal area proposed for future development.**
 - This Plan does not recommend any major highway construction projects. The existing network is sufficient for future growth.
2. **Recommendations to improve the safety and operation of the street system including re-alignments, studies for traffic control etc.**
 - Three two (2) high frequency crash corridors and one (1) severe crash corridor have been identified within the study area. A traffic study for each corridor should be performed to find solutions that address the safety issues.

3. **Recommendations to deal with one-**

- Support the development of regulations in local municipalities that mandate construction of sidewalks and pathways to serve pedestrian and other non-motorized traffic.
- Support the construction of rails-to-trails projects for use in both recreation and transportation.
- Promote the construction of missing links in the bicycle and pedestrian networks.
- Support future development patterns conducive to non-motorized travel.
- Provide safe, convenient bicycle parking and storage facilities in urban areas.
- PENNDOT should adopt B/P design and performance standards; consideration of pedestrians and bicyclists should be given when designing and locating traffic control devices, signs, and crosswalks.

CLEAN AIR ACT/AIR QUALITY COMPLIANCE

Congress passed the Clean Air Act in 1970. This Act was amended in 1977 and, most recently, in 1990. The Act contained National Ambient Air Quality Standards (NAAQS) for three measures of air quality: ozone, carbon monoxide and particulate matter. The 1977 Clean Air Act Amendments (CAAA) set 1982 as the deadline for urban areas to meet NAAQS. Areas which could not meet the standards by 1982 were designated as non-attainment areas and given an extension to 1987 to meet the standard. The Lehigh Valley was able to meet all pollution standards except ozone. Therefore, the Lehigh Valley was designated as an ozone non-attainment area. Ozone is formed by a chemical reaction between volatile organic compounds, oxides of nitrogen and sunlight. Because a high percentage of volatile organic compounds comes from tailpipe emissions, a plan to reduce mobile source emissions was required. The responsibility for developing that plan was placed on the Lehigh Valley Planning Commission in conjunction with the Lehigh Valley Transportation Study (LVTS). The resulting plan had two main strategies to reduce tailpipe emissions. The first, under the auspices of PENNDOT, was an automobile inspection and maintenance (I/M) program designed to have vehicles burn fuel more efficiently thereby reducing emissions. The second strategy dealt with the development and implementation of transportation control measures such as carpooling and ridesharing, elimination of four-way stop controlled intersections, coordination of traffic signal timing and increased transit usage. The 1982 Air Quality/Transportation Plan became part of the State Implementation Plan (SIP). It was submitted to EPA in 1982 and subsequently approved. The implementation of the I/M Program and most of the transportation control measures did not result in meeting the standard. Therefore, in the 1990 CAAA, the Lehigh Valley was categorized as a "marginal" non-attainment area, the least severe of non-attainment categories. While the Lehigh Valley met the ozone standard

way streets and traffic calming.

- **More analysis is needed to determine the need for one-way streets and traffic calming measures. The use of one-way streets and traffic calming measures would be examined as part of a Downtown Bangor Traffic Study.**
- 4. Generalized recommendations for off-street parking concepts.**
 - **The boroughs should consider acquiring properties as opportunities arise for conversion into off street parking.**
 - 5. General recommendations for mass transit and walkway corridors.**
 - **LANTA currently serves the area with two stops, one in Bangor and one in Roseto. We recommend working with LANTA to add stops at the Majestic Facility and at the proposed Veterans Hospital.**
 - **Walkway corridor recommendations will be addressed as part of the recreation plan.**
 - 6. List of highway improvement projects and procedure to fund them.**
 - **This Plan recommends implementing the projects programmed in LVTS's TIP**
 - **Ackermanville Bridge**
 - **County Bridge No. 189**
 - **County Bridge No. 191**
 - **Messinger Street Bridge**
 - **Oughoughton Creek Bridge**

through the mid and late 1990s, its “marginal” status never changed due to the anticipation that a new, more stringent standard would be adopted for ozone. EPA tried implementing the new standard (80 parts per billion averaged over 8 hours) in 1997 but delays caused by legal challenges and the drafting of regulations caused implementation to be delayed until 2004. Now that the new standard is in place, practitioners are awaiting further guidance regarding how conformity will be applied under this new standard. The guidance is due to be released later in 2004. All areas must either meet the standard or develop a plan to meet the standard by June 15, 2005. EPA is also drafting new standards for particulate matter measuring 2.5 microns or larger, referred to as PM_{2.5}. EPA will be formally designating PM_{2.5} areas by December 2004. Preliminary designations released by EPA listed both Lehigh and Northampton counties as meeting the standard.

LVPC TRANSPORTATION GOAL

To ensure that air quality in the Lehigh Valley meets the National Ambient Air Quality Standards for ozone.

POLICIES

- Highway improvement projects that have a negative impact on air quality should not be programmed (as mandated by the Clean Air Act Amendments of 1990).
- Transportation control measures such as carpooling and encouraging increased transit usage should be implemented, where feasible, to reduce vehicle miles traveled and emissions.
- The average trip length and number of trips should be minimized through compact land use patterns and mixed use developments.
- The LVTS should plan and program road improvements that reduce congestion.
- New development should be located in areas with available road capacity, thereby reducing the creation of new areas of congestion.

7. Recommendations for speed limit studies and traffic impact fee studies, and any other follow-up studies

- **Traffic Impact Fee Study**
- **Access Management Policy Study**

**Lehigh Valley Comprehensive Plan
Lehigh and Northampton Counties, PA**

(The column below is taken from the Lehigh Valley Planning Commission 2004 report entitled Comprehensive Plan, Lehigh and Northampton Counties, PA The Lehigh 2030 Valley ...

**TOWNSHIP OF WASHINGTON
COMMUNITY FACILITIES AND
PUBLIC UTILITIES PLAN**

SEWAGE DISPOSAL

The primary state legislation for the protection of water quality is the Pennsylvania Clean Streams Law. To execute this law, the Pa. Department of Environmental Protection (DEP) has been granted the power to write, adopt and enforce regulations. The Pennsylvania Sewage Facilities Act of 1966 (as amended), more commonly called "Act 537," is the primary law controlling individual and community sewage disposal systems. Act 537 requires municipalities to submit official sewage facilities plans to the DEP for approval. These plans show the current and future needs of the municipality and assess wastewater facility choices to meet these needs. They are reviewed by appropriate planning agencies, including a county planning agency, to determine consistency with land use goals and policies. The Lehigh Valley Planning Commission has maintained a long range plan for sewage disposal in Lehigh and Northampton counties since 1967. The latest version of this Plan was prepared in 1995. It contains the detailed sewage disposal policies that are the basis of LVPC project reviews. The plan identifies existing sewage disposal systems as well as sewage disposal concerns for the region. The systems are divided into two categories based on the type of service area involved as follows:

- Public sewer systems — publicly-owned systems which serve a generalized service area and designed independently of specific land developments or subdivisions.
- Central sewer systems — publicly or privately- owned systems designed primarily to serve a single subdivision, land development or rural public use involving two or more lots or domestic sewage disposal in excess of one equivalent dwelling unit (EDU) per lot.

There are currently 17 public and 25 central sewage treatment facilities in the two-county region. The location of major public sewer facilities is a key factor in the management of growth in the Lehigh Valley. Approximately 84% of all approved building lots during the 1994 to 2003 period were served by public sewers. Many municipalities within the two counties need to ex-amine their sewage treatment needs, particularly the need for future allocation of public sewage treatment plant capacity. Addressing these needs requires a revised Act 537 Sewage Facilities Plan. Based on 2000 information, 40 of the 62 municipal Act 537 plans in the region are at least 10 years old. Act 537 requires municipalities to re-view and revise their official plans whenever the municipality or DEP determines that the plan is inadequate to meet existing or future sewage disposal needs of the municipality. Building new sewage collection and treatment facilities involves substantial planning, engineering and construction costs. Most Federal funding was eliminated

**COMMUNITY UTILITIES SEWAGE
DISPOSAL & WATER, STORMWATER**

The availability of centralized water and sewerage utilities is important in this Central Slate Belt Regional Plan for the following reasons:

1. The protection of human health.
2. The preservation of environmental qualities.
3. An incentive for economic development and creation of local jobs.
4. An opportunity to influence the location and intensity of housing and other land use development.
5. An opportunity to preserve the identity and character of the Township and its villages.

Although the availability, capacity, and cost of public utilities are very powerful as a community building and preservation tool, our plan places this Public Utility Plan element last in the three major components of the Central Slate Belt Regional Plan after the Land Use Plan and the Transportation Plan elements. This regional plan first established a set of cultural, economic, and environmentally influenced land use goals and then seeks to have transportation and community utility policies organized to help carry out those plans.

Although Washington Township partially surrounds the Boroughs of Bangor, East Bangor, and Roseto, the Township does have an identity that should be preserved. The Community Facilities and Utilities Plan can help to accomplish a goal of preserving and enhancing Township identity. This "identity" goal need not be in conflict with the Central Slate Belt region's goal for greater regionalization. The way and means to accomplishing both is to view Washington Township Villages as the center of districts or neighborhood type areas that in some cases extend into the adjacent boroughs. Every effort

by the Water Quality Act of 1987. The Pennsylvania General water Assembly passed PENNVEST's financing package for clean projects on February 24, 1988. It provides low interest loans and grant assistance to local communities for financing sewer and water projects. Projects are prioritized for funding by the PENNVEST Board based on health, safety, environmental and economic development factors.

The PENNVEST loan program reflects financial need by using a formula to generate a set interest rate for each applicant within the range of 1% to 6%. Even with PENNVEST, however, sewage projects are currently funded predominantly with local funds. Within the two counties, both Lehigh Township and East Bangor Borough have had projects funded by PENNVEST since 1993. Under Act 537, municipalities are responsible for assuring that safe and reliable sewage disposal is provided within municipal boundaries. One way to accomplish this goal for on-lot sewage disposal is for municipalities to require a fully tested replacement absorption area for new development pro-posed for on-lot sewage disposal. Fully tested refers to both soil probes and percolation testing. The provision of an undisturbed tested replacement area would ensure a future safe-guard in the event of a non-repairable primary area malfunction. This could also prevent the potentially costly alternative of extending sewers, constructing a treatment plant or providing some other method of treatment and disposal. According to 2000 information, 14 municipalities within the two counties require a fully tested undisturbed replacement area.

COMMUNITY UTILITIES GOAL

- ✘ **To provide environmentally sound sewage disposal for all persons.**

COMMUNITY UTILITIES POLICIES

- Tested primary and replacement absorption areas should be provided for each lot proposed for on-site sewage disposal.
- Adequate up-to-date Municipal Official Sewage Plans should be maintained consistent with Act 537 - the Pennsylvania Sewage Facilities Act of 1966.
- Areas with malfunctioning on-lot sewage disposal systems or malfunctioning central systems should be provided with adequate sewage disposal. The most cost-effective solution to the problems should be implemented after an evaluation of appropriate alternatives is completed...

GOAL

- ✘ **To coordinate economical, efficient sewage disposal with existing and future development.**

POLICIES

- Urban development should locate in areas where the public sewer system can accept additional growth, either at present or through limited expansion and upgrading, consistent with the Comprehensive Plan recommendations for urban development.

should be taken to preserve and to enhance the neighborhood character of these districts-neighborhoods.

Washington Township Rural Villages-

Where appropriate, the Washington Township rural Village centers such as the Richmond Village and the land in the district surrounding Richmond should not have centralized sewerage service and should remain a rural district. Rural Village Centers such as Richmond, Factoryville, and Flicksville, would be appropriate places to locate a neighborhood type recreational facility, a child day care center, an adult day care center, a general convenience store, and other neighborhood type facilities and perhaps municipal water service in the future.

Washington Township Semi-urban Village Centers -

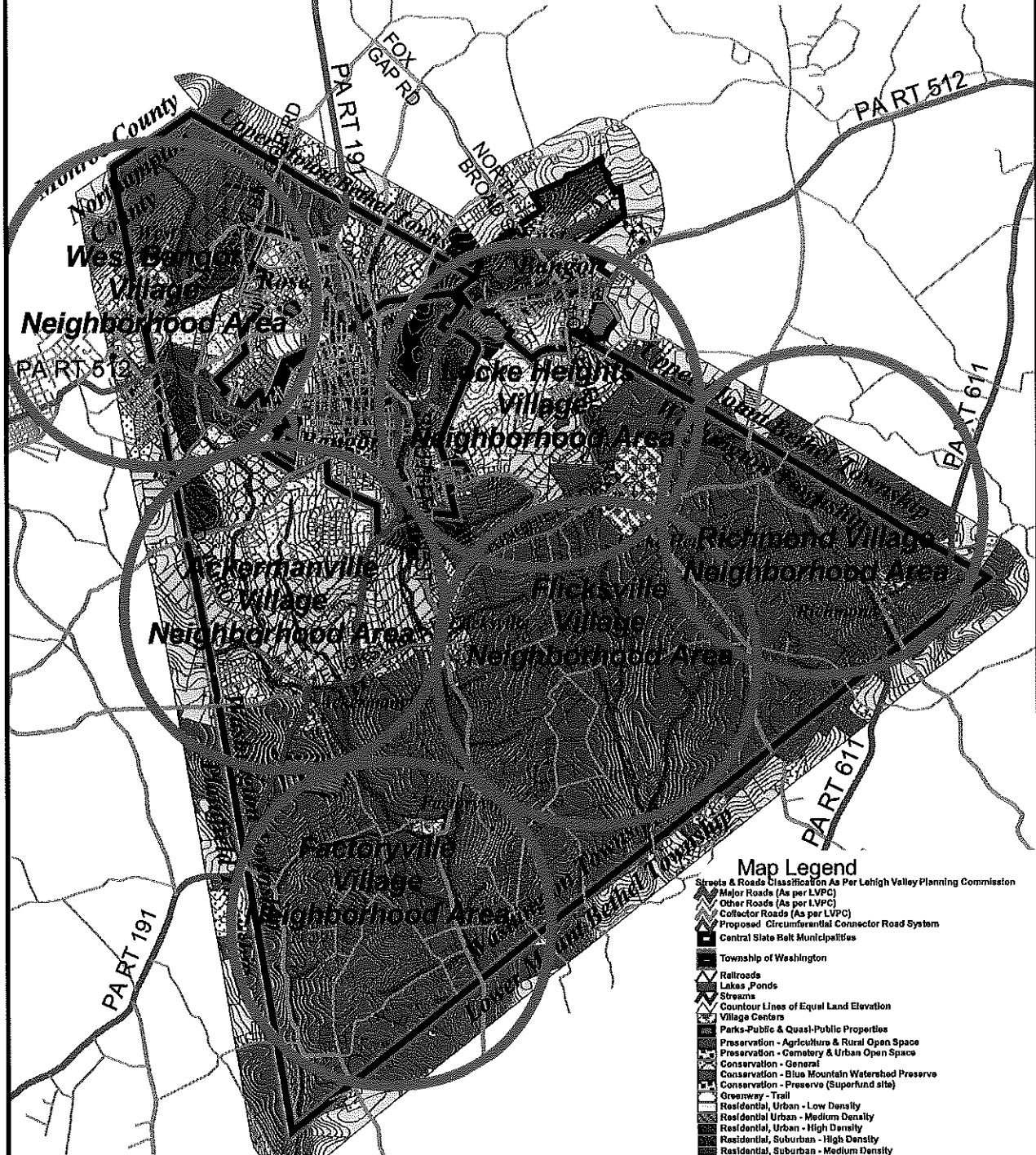
Other Washington Township Village centers will be influenced by urbanization as it expands outward from the Boroughs. These village centers include Ackermanville, Locke Heights, and West Bangor. Centralized sewerage service and public water service should be extended into these villages. These villages will become part of the urban fabric, but could and should have a more rural, township character. The sphere of influence and center of attraction of these villages will reach into the nearby boroughs. Therefore, their district or neighborhood service area could extend beyond the Township into the Boroughs.

As central places, these Semi-urban Village Centers and Districts would be appropriate places to locate a neighborhood type recreational facility, a child day care center, an adult day care center, a general convenience store, and other neighborhood type facilities. In planning for these community facilities and related land uses, the population characteristics of the nearby borough population should be considered. For instance, a new Village Neighborhood type park should consider the special accessibility needs of the older borough population, and the special needs for playfields of the apartment dwelling children in the borough part of the Village district - neighborhood service area.

See the accompanying Community Facilities-Village Center Based Service Area Map.

WASHINGTON TOWNSHIP COMMUNITY UTILITY

COMMUNITY FACILITIES PLAN Washington Township



This map was financed (in part) by a grant from the Commonwealth of Pennsylvania Department of Community and Economic Development.



Rodite & Pandl, LLC,
Community Planners &
Landscape Architects
Map Date December 2005



- Map Legend**
Streets & Roads Classification As Per Lehigh Valley Planning Commission
- Major Roads (As per LVPC)
 - Other Roads (As per LVPC)
 - Collector Roads (As per LVPC)
 - Proposed Circumferential Connector Road System
 - Central State Belt Municipalities
 - Township of Washington
 - Railroads
 - Lakes, Ponds
 - Streams
 - Countour Lines of Equal Land Elevation
 - Village Centers
 - Parks - Public & Quasi-Public Properties
 - Preservation - Agriculture & Rural Open Space
 - Preservation - Cemetery & Urban Open Space
 - Conservation - General
 - Conservation - Blue Mountain Watershed Preserve
 - Conservation - Preserve (Superfund site)
 - Greenway - Trail
 - Residential, Urban - Low Density
 - Residential, Urban - Medium Density
 - Residential, Urban - High Density
 - Residential, Suburban - High Density
 - Residential, Suburban - Medium Density
 - Residential, Suburban - Low Density
 - Residential, Suburban Growth Area - Low Density
 - Residential - Rural Low Density
 - Business - Central Business District
 - Business - Neighborhood and Highway
 - Business - General & Mining
 - Business Parks and Industry
- EXISTING LAND USE ADJACENT TO REGION**
- Agricultural & Vacant
 - Offices
 - Parks & Other Outdoor Recreation
 - Public & Quasi Public
 - Residential
 - Retail/Commercial
 - Transportation, Communications & Utilities
 - Warehousing/Distribution
- Note: Central State Belt Proposed Land Uses extend into adjacent municipalities on properties that are also in the Central State Belt Region.

Central Slate Belt Region - Boroughs of Bangor, Roseto, East Bangor, and Township of Washington

• Urban development should be discouraged in areas where it can only be served by on-site sewage disposal systems or new central sewage facilities. However, urban development in this Comprehensive Plan may be served by existing or expanded publicly owned central sewage facilities under the following conditions:

1. The area is clearly defined for urban development and sewer service in the municipal comprehensive plan, Act 537 plan and zoning ordinance;
2. The defined urban area is a limited and contiguous expansion to the existing service area; and
3. the municipal zoning ordinance is effective at steering urban land uses to the defined area and otherwise preserving agriculture and natural features.

• Public system treatment plant expansions and included in the LVPC Sewer and relief interceptors should be constructed to accommodate new development that occurs consistent with this Comprehensive Water Plan or suitable alternate forecast prepared by the municipality.

• In areas where the Comprehensive Plan recommends urban development, but where public sewers are not yet available, lot sizes smaller than one acre served by on-site sewage disposal should be allowed if the project is consistent with the municipal Act 537 Plan and if a viable financing commitment exists for extension of sewer lines. A tested primary absorption area should be provided for each lot and a capped sewer system should be in-stalled. The capped sewer system should be connected to the public system when available.

• Rural development should be served by on-lot sewage disposal facilities except where local zoning allows conservation design techniques to preserve natural features or farm land using central sewage disposal facilities. Central sewage treatment and disposal may also be acceptable for recreational, institutional or other public uses that by necessity require a rural location.

• In areas recommended for urban development, interim central sewage facilities should be allowed if properly installed and maintained, and if the development can be connected to public sewers within five years.

• If, after an evaluation of alternatives, it is determined that a public sewage system is the Plan. The timing and sizing of these facilities should be consistent with the sewage flow forecasts

best solution to an existing sewage disposal problem, then the capacity of the new system should be determined as follows:

— If the provision of sewers means the area would be recommended for urban development in this Comprehensive Plan, the system should be designed to serve additional urban development areas supported by an updated planning analysis.

— If the area would not be recommended for urban development in this Comprehensive Plan, even with sewers, the system should be designed to serve only the existing development...

WATER SUPPLY PLAN

Preservation of water resources is a major priority of the

RECOMMENDED GOALS AND POLICIES

This Central Slate Belt Regional Comprehensive Plan for 2005 to 2030 recommends the following goals related to community utilities:

COMMUNITY FACILITIES & UTILITIES GOAL

✘ ***To seek economical, efficient sewage collection and disposal for existing areas of urban development, areas nearby to existing service areas that have failing on-lot sewerage systems even if they are low density, and finally areas designated for future urban development in this plan, but no sewerage service is proposed for areas designated for farmland preservation, open space protection, and environmental preservation areas.***

POLICIES

• Urban type development should locate in areas where the public sewer system can accept additional growth, either at present or through limited expansion and upgrading, consistent with the Comprehensive Plan recommendations for urban development. (Note: Public sewerage service may include publicly owned collection of sewage, sewage treatment in innovative ways and spray irrigation of the clean effluent in field or forest areas)

• Urban development should be discouraged in areas where it can only be served by on-site sewage disposal systems. However new central sewerage facilities may be designed to serve new urban development recommended in this Central Slate Belt Regional Comprehensive Plan even if those areas are beyond the current service areas of existing public sewerage systems. But, this plan does not recommend the creation of new sewerage systems or the extension of existing sewerage systems into areas that are recommended for farmland preservation, watershed protection, or open space protection.

GOAL

✘ ***To require environmentally sound sewage disposal for all persons, businesses, and other human activity within the Central Slate Belt Region.***

regional water supply plan. Pollution and/or loss of potable water are potential problems facing many municipalities. Overall, water of adequate quality and quantity is available to meet current demands in the Lehigh Valley. However, the ability to provide a safe, reliable water supply could be adversely impacted without careful county and local planning. Water suppliers need to have emergency plans, establish emergency interconnections with other systems and implement water source protection programs to assure a safe, reliable supply. The LVPC has created several ordinances that are available for consideration by municipalities to help ensure water supplies of adequate quantity and quality for existing and future users. These ordinances include a wellhead protection ordinance, small water system ordinance and draft water withdrawal ordinance. The LVPC previously prepared a long range water supply plan in 1995. That plan contains the detailed water policies that are the basis of LVPC project reviews. Its primary purpose is to guide water supply decisions for the region. The 1995 plan evaluates existing and future water use for community and central water systems. Water usage and facility data is available annually from the DEP for each system. Community and central water systems are defined as follows:

— Community water systems — publicly or privately- owned systems which serve a generalized service area and are designed independently of specific land developments or subdivisions.

— Central water systems — publicly or privately-owned systems designed primarily to serve a single subdivision, land development or rural public use involving two or more lots or domestic water use in excess of one EDU on a single lot.

The availability of community water systems has been a factor influencing the location of urban development within the two counties. Approximately 85% of all approved building lots during the 1994-2003 period were served by community water systems. The LVPC Water Supply and The LVPC Water Supply and Sewage Facilities Plan 2000 Supplement documents 25 community water systems in the two counties with their own source(s) of supply. Since 2000, the Citizens Utilities water system and service area were acquired by the Penn American water system. Many community systems serve multiple municipalities.

Coordination of community water system development with comprehensive land use planning is essential for assuring long-term, reliable water supplies. Water demand projections for community water systems help identify needed improvements to source yield, filtration capacity and treated storage volume. Based on 1995 system data, 12 of the 25 community water suppliers required at least one of these improvements. Water supply sources and land use also need to be matched to prevent pollution of supplies. Water supply pollution previously experienced by Cherryville in Lehigh Township, Whitehall Township Authority, Emmaus Borough Authority, Lehigh County Authority and Catasauqua Borough attest to the critical link between land use and water supply. Thus far, Upper Mount Bethel Township, Catasauqua Borough and Washington (L) Township have adopted wellhead protection ordinances to help prevent pollution.

POLICIES

- To continue the Township policy that a tested primary and replacement absorption areas should be provided for each lot proposed for on-site sewage disposal.
- Adequate up-to-date Municipal Official Sewage Plans should be created and be main-tained consistent with Act 537 - the PA Sewage Facilities Act of 1966.
- Areas with malfunctioning on-lot sewage disposal systems or malfunctioning central systems should be provided with adequate sewage disposal. The most cost-effective solution to the problems should be implemented after an evaluation of appropriate alternatives.

It should be noted that there are three existing sanitary sewer authorities that could play a role in the Washington Township section of this Central Slate Belt Region. For example, the impact of these Authorities could include: East Bangor Authority with possible sewer service extension into the Locke Heights section of Washington Township; Pen Argyl Authority with possible sewer service extension through Plainfield Township into the West Bangor Village section of Washington Township; Bangor Authority with possible sewer service extension into the Meyers Crossing area of Washington Township.

WATER SUPPLY PLAN

The Central Slate Belt Planning Region includes two Community Water Systems:

- Public System owned and operated by the East Bangor Municipal Authority.
- Private System owned and operated by the Pennsylvania American Water Company.

In addition to the Community Water Systems, there are private on-lot water systems that serve properties primarily In Washington Township.

Direct local government control over the quality and quantity of potable (*suitable for drinking*) water is minimal. Local Central Slate Belt Regional municipalities should require that minimum health and safety standards for potable water be included in the initial development. However, the monitoring, supervision and enforcement of water quality standards after development takes place is the responsibility of

The LVPC compiled data on central water systems in the Water Supply and Sewage Facilities Plan 2000 Supplement. There are 32 central water systems serving subdivisions and institutions, and 37 central water systems serving mobile home parks. These systems are widely dispersed. Adding them to a regional system is often difficult, expensive and at public cost. Recently, several central systems have been proposed for acquisition by community systems because there are either operational problems with the central systems or the owners simply no longer want them. In 1997, the LVPC prepared a small water system ordinance designed to regulate both the creation of new small water systems and the expansion of existing small water systems.

The cost for providing water will increase as amendments to federal and state regulations are enacted requiring water systems to meet more stringent standards. Large community water systems, through economies of scale and diverse customer bases, should have less trouble meeting new standards. However, new pollutant regulations could have a serious impact on central water systems. Many central water system owners do not have the knowledge or money to meet new requirements. The result could be many existing central water systems being abandoned if not obtained by capable suppliers. A means for assuring that adequate water supply is provided by existing central systems and that any new systems are viable needs to be established regionally and statewide.

Providing service to existing and future customers in an adequate and cost-effective way often requires agreements between municipalities. The agreements may be for routine water service or may include provisions to deal with emergencies. Most adjacent water systems/municipalities have water supply agreements to govern service areas, allocations and emergencies. However, several situations still exist where there are no agreements or inadequate existing agreements.

These communities need better agreements to assure that a safe, reliable water supply is available at all times. In 1997, the LVPC researched a draft water withdrawal ordinance for consideration by municipalities to manage water resources. The intent of the ordinance was to ensure continuous water availability and prevent adverse impacts on existing users for proposed withdrawals of 10,000 to 100,000 gallons per day that are less than that regulated by DRBC. DRBC has broad regulatory authority over water withdrawals. Municipalities should be aware of this authority when considering adoption of the draft ordinance.

In 2002, the LVPC completed a preliminary assessment of the Valley's water resources to identify current and future well water users of all types through 2030 and water availability during normal and drought conditions. From the available data, it was found that well water demand will not exceed groundwater supply during normal and drought conditions through 2030. However, one of the main findings of the assessment was the lack of up-to-date, reliable data on water usage, groundwater recharge and water quality. DEP and DRBC need to create both consistent, current databases for the data and comprehensive water management policies addressing various hydrologic settings. These issues may be resolved as part of an updated State Water Plan. In

higher authorities such as the PA Public Utilities Commission and the PA Department of Environmental Protection.

However, since all of these water systems rely upon subsurface water, rainwater recharge of the subsurface aquifers, and surface water recharge of the subsurface aquifers, the municipalities do have an indirect involvement in the protection of water quality and quantity available for public consumption. The municipal Land Use Plan element of the Regional/ local Comprehensive Plan and the Municipal Zoning Ordinance are municipal opportunities to help assure safe potable water supplies.

This Central State Belt Regional Plan seeks to assure that there is a safe, reliable water supply. Preservation of major community water system watershed areas in open space and forest use, as recommended in the Regional Comprehensive Plan, is an important part of this Regional Plan.

This Central State Belt Regional Plan is also concerned about the safety of water supply sources, water storage, and water conveyance systems. The level of concern was broadened starting from the terrorist attacks in New York City and Washington, D.C. on September 11, 2001. Therefore, this plan encourages the two Community Water System suppliers to create and implement emergency plans that would respond to natural and human and other adverse impacts upon these local water systems.

Since on-lot water supply is an important means of supplying potable water in the Township part of this region, the protection of well water quality is of great importance for this plan. As a result, this plan recommends that Washington Township adopt the latest well head protection regulations as they become available from the Lehigh Valley Planning Commission and that those regulations be enforced.

WATER PLAN GOAL

GOAL

✘ *To coordinate economical, efficient Community Water System, water service with existing land use and the Central State Belt Regional recommended future development.*

December 2002, the state passed the Water Re-sources Planning Act. The Act mandates that the State Water Plan be updated within five years.

Changes to the Pennsylvania Municipalities Planning Code (MPC) in 2000 require municipal and county comprehensive plans to contain a plan for the reliable supply of water. This section of the comprehensive plan contains policies and implementation strategies to address the MPC amendment. The water supply goals and policies of this plan are generally consistent with those of the current State Water Plan and Delaware River Basin Commission Comprehensive Plan. The county comprehensive plan, through its policies, promotes the provision of adequate supplies of water of good quality to meet the existing and future needs of the Lehigh Valley.

GOAL

- ✘ **To provide water supplies of adequate quantity and quality to meet both the existing and future needs of all persons.**

POLICIES

- The quality and quantity of existing ground and surface water should be protected. Proposed water withdrawals should be accomplished without adversely impacting the present or future uses of the Basin's water resources during both drought and non-drought conditions. Lawful activities, such as extraction of minerals, impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.
- Areas experiencing problems with existing on-site or central water supply should be provided with adequate water service. The most cost-effective solution to the problems should be implemented after an evaluation of appropriate alternatives is completed.
- Water conservation measures should be implemented by all existing and future systems during both emergency and non-emergency operations.
- Community and central water facilities should be designed, constructed, and managed to provide long-term adequate water supply.
- Existing central water systems should be operated and managed in accord with DEP public water system standards...

GOAL

- ✘ **To coordinate economical, efficient water service with existing and future development.**

POLICIES

- Urban development should locate where the existing community water system can accept additional growth, either at present or through limited expansion and upgrading, in areas where the Comprehensive Plan recommends urban development.
- Urban development should be discouraged in areas where

POLICIES

- Urban development should locate where the existing community water system can accept additional growth, either at present or through limited expansion and upgrading, in areas where the Comprehensive Plan recommends urban development.
- Urban development should be discouraged in areas where it can only be served by on-site water systems or new central water facilities unless such areas are identified on the Central Slate Belt Regional Comprehensive Plan for future urban type development.

Urban development in areas recommended for rural development in the Comprehensive Plan may be served by existing or expanded publicly-owned central water facilities under the following conditions:

1. The area is clearly defined for urban development and water service in the municipal comprehensive plan and zoning ordinance;
2. The defined urban area is a limited and contiguous expansion to the existing service area; and
3. The municipal zoning ordinance is effective at steering urban land uses to the defined area and otherwise preserving agriculture or open space. LVPC standards and guidelines should be considered in any expansion of water services into areas beyond contiguous expansion of existing service areas.

STORMWATER MANAGEMENT

The Central Slate Belt Region is primarily located in the Martins Creek Watershed (about two thirds of area). Since the Planning Area is in the foothills of the Blue Mountain, these watersheds are near their headwaters where the streams and valleys are somewhat smaller but any rain event has a much quicker impact on the stream. There isn't as much time to react and prepare for a stormwater runoff or a flood event as there is in the lower reaches of these watersheds. As a result, the hazards to property and life are somewhat different in that there is not as much time to prepare. The best preparation is in the planning of land development and the management of ground cover in open space area

it can only be served by on-site water systems or new central water facilities. However, urban development in areas recommended for rural development in the Comprehensive Plan may be served by existing or expanded publicly-owned central water facilities under the following conditions:

1. the area is clearly defined for urban development and water service in the municipal comprehensive plan and zoning ordinance;
2. the defined urban area is a limited and contiguous expansion to the existing service area; and
3. the municipal zoning ordinance is effective at steering urban land uses to the defined area and otherwise preserving agriculture or open space.

- In areas where on-site sewage disposal systems will be used for more than five years, the availability of a central water system should not be used as a basis for permitting urban development.
- A safe and reliable community water supply should be available in areas designated by this Plan for urban development.
- Community water supply sources, treated storage and filtration plant capacities should be expanded to accommodate new development that occurs consistent with this Comprehensive Plan. The timing and sizing of these facilities should be consistent with the water demand forecasts included in the LVPC Sewer and Water Plan.
- Rural development should be served by on-site water supply except where local zoning allows for "clustering" using central water supply to preserve open space or farmland. Community or central water supply may also be acceptable for recreational, institutional or other public uses that by necessity require a rural location.
- Provision of water supply should be accomplished as efficiently and economically as possible. Maximum use should be made of the existing community water systems to more efficiently use present investments and minimize future investments in water supply facilities.
- Solutions to existing water supply problems located in areas not recommended for urban development in this Comprehensive Plan should not be designed to accommodate substantial new urban growth.
- In areas recommended for urban development, interim central water facilities should be allowed only if designed, at minimum, to meet DEP public water system standards, if properly installed and maintained, if the development is connected to the existing community water system when available and if the expected need for centralized facilities is no longer than five years.
- Municipalities should coordinate land use planning with water resource planning. Multi-municipal efforts to coordinate land use and water resource planning should be encouraged...

STORMWATER MANAGEMENT

Historically within Pennsylvania, stormwater management design criteria were crafted by individual municipalities without the ability to consider watershed-wide impacts. The weakness of this approach was that stormwater runoff rarely

and along stream corridors.

Washington Township is struggling with a system of storm water detention and retention that was constructed as part of subdivision and land development projects. Although those systems worked initially, some of them are now failing due to lack of proper maintenance. The developer, lot owner or community association is responsible for storm water detention system maintenance. In many instances, the owners are not fulfilling their obligations. This Central Slate Belt Regional Plan for Washington Township recommends that two approaches be considered to this problem of maintenance. The first approach is to require that all such detention facilities be dedicated to an agency such as an authority and that a certain maintenance fund be established by the developer for each detention facility. A second approach would be that the Township be given access to privately owned stormwater detention/retention facilities and a maintenance bond to cover a period of years. A third approach is to require future storm water planning to utilize public street right-of-ways or other right-of-ways that are more accessible for maintenance purposes.

This Central Slate Belt Regional Plan for Washington Township recommends that future storm-water management be planned on an inter-municipal watershed basis rather than on a subdivision by subdivision basis. Where possible, existing storm water and flooding issues should also be mitigated through inter-municipal improvement projects and land use & zoning strategies to reduce the flood hazards through reduced impermeable land use coverage.

COMMUNITY FACILITIES & UTILITIES GOALS

- ✘ ***To establish an intercommunity stormwater cooperative approach to manage the rate, volume and quality of stormwater runoff for protection of public safety and welfare, property and the environment.***
- ✘ ***To study ways and means for the mitigation of existing stormwater runoff problems in the Martins Creek Water-shed in each of the Central Slate Belt Communities.***

conforms to municipal boundaries. Adequate planning cannot be done on a parcel-by-parcel, municipality-by-municipality basis. Additionally, stormwater law was a patchwork of court decisions based partially on the civil law doctrine protecting downstream landowners and partially on the common enemy doctrine protecting the rights of upstream landowners. Lack of clear legal guidance and sufficient hydrologic information historically hampered the ability of municipalities to make sound stormwater management decisions. In 1978, the Pennsylvania General Assembly passed the Stormwater Management Act, Act 167 of 1978, which clarified both the technical and legal elements of stormwater management decisions. Act 167 requires counties to prepare storm-water management plans on a watershed-by-watershed basis. The plans must be developed in consultation with the affected municipalities. Standards for control of runoff from new development are a required component of each plan and are based on a detailed hydrologic assessment. A key objective of each plan is to coordinate the stormwater management decisions of the watershed municipalities. Implementation of each plan is through mandatory municipal adoption of ordinance provisions consistent with the plan. Within Lehigh and Northampton counties, the Lehigh Valley Planning Commission prepares plans on behalf of both counties. The State has designated sixteen Act 167 study areas within the region. Map 24 displays the status of Act 167 planning in the Lehigh Valley in 2003. All of the LVPC storm water planning to-date has dealt solely with runoff quantity and does not deal with runoff quality. The National Pollutant Discharge Elimination System (NPDES) regulations from the Environmental Protection Agency affect 59 of the 62 municipalities in Lehigh and Northampton counties. The City of Allentown was the only municipality subject to the Phase I regulations. NPDES Phase II regulates operators of small municipal separate storm sewer systems (MS4s) located in urban areas and operators of construction activities that disturb between one and five acres of land. During the 5-year permit term, the MS4s must adopt and implement an ordinance that requires the use of storm water Best Management Practices (BMPs) to reduce or prevent the discharge of pollutants into receiving waters. The MS4s must also develop programs consistent with the DEP guidance for the 6 "Minimum Measures" outlined in the regulations. DEP has stated that the Plans and model ordinances prepared under the Act 167 planning program, which include the use of BMPs, satisfy several of the "Minimum Measure" requirements.

The LVPC and Lehigh County are currently working on an update to the Little Lehigh Creek Watershed Act 167 Plan to address water quality. The municipalities in the watershed are scheduled to adopt the model ordinance in 2004. The Little Lehigh Water Quality model ordinance can then be used as a starting point for water quality updates in other watersheds.

Plans prepared under the Stormwater Management Act will not resolve all drainage issues. A key goal of the planning process is to maintain existing peak runoff rates throughout a watershed as land development continues to take place. This process does not solve existing flooding problems although it should

✘ ***To implement solutions for the existing stormwater problems through intercommunity cooperation.***

This Plan embraces the LVPC stormwater management policies. This Plan also recommends that the Slate Belt COG seek a Growing Greener (or similar) project to reduce the stormwater runoff from Washington Township into adjacent Boroughs thereby mitigating future flood hazards.

SOLID WASTE

Solid waste management is becoming a very expensive service for the residents of the Central Slate Belt Planning Area. In the long range, research needs to be conducted into ways and means for reducing the amount and cost of waste disposal. In the meantime, the primary way to reduce costs is to increase the amount of solid waste that is recycled and reduce the stream of materials that is conveyed to the land fills.

Leaves, grass, tree, and yard waste disposal is an area that the newly formed Slate Belt Region Council of Governments decided to study. Their plan is to identify ways and means by which these yard waste products could be recycled through composting via an inter-municipal program. Washington Township could be one of the host municipalities for a leaf and yard waste box storage and transfer station. ***(Note: Washington Township is not interested in hosting a leaf and yard waste transfer station in the short range timeframe [2005 to 2007] of this Comprehensive Plan particularly if the recycling of leaf and yard waste is handled by a business as opposed to a municipal or an Authority)*** This Township transfer station could be located at the current public works garage location or as part of the Township Community-wide Park complex if it would fit into the overall Master Plan for that park.

The Commonwealth of Pennsylvania provides incentive grants for recycling of waste materials. The larger grants go to those communities that achieve the highest rate of recycling. Therefore, there are financial incentives for recycling these materials.

GOALS

✘ ***To initiate a successful leaf, grass, and yard waste disposal program through***

prevent these problems from getting worse. Correction of existing flooding problems is the responsibility of the municipalities.

GOAL

- ✘ **To manage the rate, volume and quality of storm runoff for protection of public safety and welfare, property and the environment.**

POLICIES

- New development should be designed with respect for natural drainage patterns to avoid future storm drainage problems.
- To assure preservation of adequate areas for carrying storm runoff, structures should not be developed in natural swales identified in the LVPC report entitled Regional Storm Drainage Plan (1975).
- Open channels may be constructed where a natural swale, as identified in the Regional Storm Drainage Plan, inhibits reasonable use of a property. Open channels should follow the course and grade of the existing swale and should be designed to minimize erosion.
- In watersheds governed by an approved storm-water management plan under Act 167 of 1978, stormwater controls should be provided to meet the performance standards specified in the plan.
- In watersheds not governed by an approved stormwater management plan, the municipality, in consultation with the municipal engineer, should determine the appropriateness of stormwater detention for new development.
- Stormwater management during construction should be accomplished in a manner that is consistent with the Department of Environmental Protection regulations as administered by the County Conservation Districts. Standing water on construction sites should be managed in a manner that protects public health, safety and welfare...

SOLID WASTE

The solid waste crisis of the late 1980s has become a distant memory. Today, solid waste management follows the provisions of the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101). The Act grants powers and duties to counties and municipalities relating to solid waste management. Counties are responsible for the preparation and implementation of a municipal waste management plan. The plan must contractually assure the existence of waste disposal capacity for a ten-year period. Municipalities may opt out of a county plan if they have their own plan. Municipalities with a population greater than 5,000 and a population density of 300 or more persons per square mile are required to have a curbside collection recycling program. The Act remains in effect although the Courts have ruled that flow control, the primary means of implementing the municipal waste management plans, is unlawful. Lehigh and Northampton counties have each prepared a solid waste plan to meet the Act 101 requirements. The most recent adopted plans are dated 1990 (Northampton County) and

the Slate Belt Council of Governments.

- ✘ ***To substantially increase (50% increase) the amount of solid waste that is recycled in the Central Slate Belt Region.***

POLICY

- The Slate Belt Area Council of Governments should take the lead in establishing an improved recycling program and a new leaf and yard waste recycling program.

PARKS AND RECREATION PLAN

Each of the four Central Slate Belt Communities contains a community-wide park. The newest of these is in Washington Township. It is located to the rear of the Washington Township Municipal Building located on S.R. 191 just south of the village of Ackermanville.

A Washington Township Master Park Plan will soon be completed for the Washington Township Community-wide Park. It will provide a plan for the further development and operation of the Washington Township Community-wide Park and recreation complex.

This Central Slate Belt Multi-municipal Comprehensive Plan for Washington Township recommends that the Township-wide Park be further enhanced by connecting it to a regional greenway. The Lehigh Valley Planning Commission is currently preparing a regional Greenway Plan. Hopefully, that plan will provide an opportunity for an interconnection between a regional greenway and the Washington Township Community-wide Park.

In addition to the foregoing recommendations, this Central Slate Belt Plan for Washington Township proposes that special recreation facilities be considered in partnership with businesses and groups of people interested in sponsoring and naming certain facilities. For instance, a park exercise course could be constructed with several sponsored stations in the park and along walking trails in and near the Washington Township Park. Park benches and table game areas could be constructed again in the Township-wide park or in new neighborhood parks. If possible, Washington Township should also consider providing an

October 1996 (Lehigh County). These plans have been approved by DEP. Northampton County has also completed a revised plan dated March 2003. Plan adoption is pending at this writing. The draft Northampton County Municipal Waste Management Plan allows municipal waste to be taken to a number of facilities, each of which has a contract with the County to accept the waste. In a similar fashion, the Lehigh County Solid Waste Management Plan allows solid waste to be taken to any permitted facility. The County has entered into contracts with disposal facilities located within 100 miles of the county such that the facilities will accept waste generated in the county. However, the waste may also be taken to permitted facilities that are more than one hundred miles from the county. Both of the solid waste plans seek to reduce the amount of solid waste needing disposal by promoting recycling. Recycling programs are part of each of these plans. The county plans assure disposal capacity for a ten-year period. The Act 101 plans do not cover other types of wastes including hazardous, infectious, construction and demolition and residual (industrial) wastes. Specific DEP regulations control the disposal of each of these types of waste. The Act 101 plans do not consider issues relevant to permit applications or modifications to existing solid waste facilities, including expansions. They include no policies on such matters and take no positions on any such permit application, except that the draft Northampton County plan supports the capacity expansion of the East Penn Transfer Station. Improperly managed solid waste facilities can create numerous problems such as ground water pollution, surface water pollution, air pollution, odors, noise, off-site litter, disease and vectors. DEP is charged with enforcing rules and regulations to prevent these problems. The rules and regulations cover the design and operation of solid waste facilities through a permit process. The permit process allows the host municipality and the host county to review and comment on the permit applications. Lehigh and Northampton counties have designated the LVPC to handle host county reviews. However, the LVPC is neither staffed nor funded to do technical reviews of solid waste issues. Local governments retain a degree of control over facility siting, design and operations insofar as relevant state laws enable and do not preempt such regulations.

GOAL

✘ **To assure environmentally responsible and economical waste disposal.**

POLICIES

- Disposal of waste generated in Lehigh and Northampton counties should be in accord with the Northampton County Municipal Waste Plan or the Lehigh County Solid Waste Management Plan as relevant. This comprehensive Plan incorporates the most recently adopted versions of these plans by reference.
- Material should be recycled and reused to the degree economically feasible. (Economic feasibility considers avoided disposal costs as well as direct revenues.)
- Solid waste facilities should be sited in areas with adequate

opportunity for specialized trails such as equestrian trails, cross country ski areas, and in certain locations even trails for motorized vehicles.

Finally, if vacant lands located in the Township are proposed for development, then this Plan recommends the creation and development of neighborhood parks especially where there is a natural pond or wetland area that could be preserved and integrated into a small playground facility primarily to benefit the residents of the new houses.

OPEN SPACE PRESERVATION

In the short range timeframe (2005 to 2007) Washington Township will not be interested in acquiring open space land because of other high priority Township needs. However, the Township would not discourage other organizations such as the Nature Conservancy or other similar non-profit organizations from acquiring open space land in Washington Township with the purpose of protecting open space from development and preserving open space for future public benefit. In the mid-range future (2008 to 2015) Washington Township may consider adopting a dedicated tax for the purpose of open space preservation. Currently, that type of tax requires a referendum vote of all registered voters living in Washington Township. The objective of such preservation would be to keep open space for future generations. This could be accomplished through outright purchases, through donations of land by private land owners, or through the purchase or donation of land development rights. There are several models that could be considered where other townships in Pennsylvania have adopted a one quarter of one percent increase to the Earned Income Tax with the revenues from that increased tax dedicated to the acquisition and preservation of open space in their township. In some of those townships, the local revenues are being leveraged against county bond issue as well as State grants to extend the impact of the local funding and preservation program. One or more of these townships also float a bond issue to purchase land in the immediate future at more reasonable prices and then pay off the bond from the revenues generated from the Earned Income Tax revenues. The Plan recommends that Washington Township consider these options and place a proposal before the residents of Washington Township as soon as possible.

access and in accord with the policies of this plan, including those relating to land use, natural resource protection, farm-land preservation, recreation and open space and highways.

- Solid waste facilities should be sited, designed and operated to minimize the impact on existing residential areas in accord with the policies of the housing section of this plan.
- Solid waste facilities should be designed in accord with the relevant stormwater management plan and should mitigate the offsite traffic impacts.

PARKS AND RECREATION

Residents of the Lehigh Valley have grown accustomed to high quality local and regional parks. Allentown, Bethlehem and a number of smaller municipalities have long been committed to parks. In 2000 the Lehigh Valley Green Future Fund was created to explore the possibility of park and open space bond issues in each county. The group, com-posed of local civic leaders and government officials, came up with the recommendation that each county should have a \$30 million bond issue. The monies from the bond issue would be used to acquire important natural areas, land for future parks, and agricultural conservation easements to preserve farmland. Nonbinding referendums were held in both counties in 2002. The initiatives were strongly supported in each county (70% in Lehigh and 64% in Northampton).

Lehigh and Northampton counties started major county-wide park programs in the late 1960s in response to recommendations made by the LVPC. The counties and the LVPC have been actively involved in park planning, acquisition and development ever since. The park and open space goals presented here are based on a LVPC document entitled Regional Recreation and Open Space Plan and detailed plans prepared for each county....

The amount of land in parks and other outdoor recreation in the Lehigh Valley has increased substantially since the LVPC completed the first recreation and open space plan for the Lehigh Valley. Between 1970 and 2003, outdoor recreation acreage in the two counties increased by 15,556 acres, or about 76%. The greatest increase was in Northampton County - 99%. The increase in Lehigh County was 60%. The amount of parkland owned by the two counties increased 2,795 acres, or 190% during the 33-year period. Municipal parkland grew 3,683 acres, or 120%, between 1970 and 2003. The remaining increase in acreage was largely due to acquisitions by the Wildlands Conservancy, the state and federal government. The develop-ment of five new 18-hole golf courses since 1990 added 896 acres to the regional recreation inventory. Most of the recommendations of the 1971 Recreation and Open Space Plan have been fulfilled. One measure of a region's park and open space system is the acres per 1,000 population standard. The National Recreation and Park Association (NRPA) suggests that a core park system should have 6.25 to 10.5 acres of developed open space per 1,000 population. This is local, close-to-home space that includes mini-parks,

SCENIC RESOURCES

State Route 191 is a scenic resource highway that has not been officially designated. It crosses the Appalachian Trail to the north of the Central Slate Belt Regional Planning Area. As it descends into the Planning Area from the crest of the Blue Mountain, the views from this roadway can be very inspiring. Then it passes through the Borough of Roseto, Bangor and Washington Township with many special views.

COMMUNITY FACILITIES & UTILITIES – PARK, RECREATION & OPEN SPACE GOALS

- ✘ ***To preserve open space and important natural areas.***
- ✘ ***To create an interconnected greenway system that links all four Central Slate Belt Municipalities with a walking an/or bicycling trail.***
- ✘ ***To increase the number of recreation playing fields available within the Planning Region and to provide coordinated, inter-community use of these fields.***
- ✘ ***To increase the number of safe play apparatus areas for children in each community.***
- ✘ ***To provide specialized recreation facilities for adults and particularly for senior citizens.***
- ✘ ***To seek private sector partnerships with regard to the creation, operation and maintenance of recreation facilities.***
- ✘ ***To prepare a Slate Belt COG Regional Park and recreation plan.***

PUBLIC BUILDINGS AND POLICE

The recently constructed Washington Township Municipal Building is adequate for the foreseeable future. The Township Garage complex requires additional building space and facilities for the staff such as improved restroom and shower facilities. The current Township Garage is well located for its needs. This plan recommends that the barn structure be carefully dismantled and used

neighborhood parks and playgrounds, and community parks. In addition, the NRPA recommends there be another 15 to 20 acres per 1,000 population in regional space which includes regional/metropolitan parks and regional park reserves.

...for the year 2020 and Northampton County needs only another 42 acres. The Lehigh Valley had 7.4 acres of local, close-to-home recreation space per 1,000 persons in 2003. If the 10.5 acres per 1,000 persons NRPA guideline is used, another 2,637 acres of local, close-to-home recreation space will be needed in the Lehigh Valley by the year 2020. In 2003 the Lehigh Valley had 4,747 acres in regional parks. ... both counties were below the NRPA minimum suggested guideline of 15 acres of regional space per 1,000 persons. The two counties will need another 5,203 acres of regional parks by the year 2020 to meet the minimum NRPA suggested guideline.

... The LVPC staff will be preparing a regional greenways plan for the two counties starting in late 2004.

SCENIC RESOURCES

The Lehigh Valley has an abundance of scenic resources. These resources include scenic waterways, scenic roads, scenic views, and scenic features or areas. The Valley's identity is formed and reinforced through these features. Scenic features are viewed as a regional asset that contribute to our quality of life. Examples of scenic waterways include the Delaware River, the Lehigh River and many of our streams. Scenic roads can still be found throughout the two counties. The best known is the Delaware River Scenic Drive (scenic Route 611) in Northampton County. This road was designated a scenic drive by the State of Pennsylvania on December 5, 1988... Scenic views exist at many locations throughout the Lehigh Valley... The two most prominent scenic features of the Lehigh Valley are the Blue Mountain and South Mountain. These two features form the backdrop for much of the region. Our farmlands are an important resource that Valley residents appreciate for their open space value and their scenic beauty...

Some other scenic features of importance include covered bridges, the Bethlehem star, downtown Bethlehem, the square in Nazareth and the Little Lehigh Parkway in Allentown.

GOAL

To provide and maintain adequate space and facilities to meet the recreation needs of Lehigh Valley residents.

POLICIES

- The counties and municipalities should meet minimum National Recreation and Park Association suggested guidelines for park space and recreation facilities.
- Current recreation activity trends and local demographics should be used when planning for new recreation facilities and programs.

elsewhere. In its place, the Township should construct a well designed public works department garage with all related facilities including facilities for equipment repair. As an alternative to the above recommendation, the Township should do a careful space use and location study to determine if the Township Garage Complex should be relocated to land adjacent to the Washington Township Municipal Park Complex or to another location.

This Plan recommends that municipal police service be provided on an inter-municipal basis with at least one additional municipality entering into inter-municipal cooperation agreement with Washington Township to jointly provide police service to their municipalities.

Fire fighting services are currently provided by a volunteer fire department. Their service is excellent. Mutual aid with other municipal fire departments helps the other municipalities and also from time to time helps Washington Township to fight major fires. That type of cooperation is encouraged to continue into the future. It may even be appropriate to consider formal cooperation agreements and possible merger of fire departments to help the smaller boroughs who are dependent on fewer and fewer young people to volunteer to fight fires particularly in light of the trend for people to commute long distances to work.

ENERGY CONSERVATION AND ENERGY GENERATION PLANS

This Central State Belt Multi-municipal Plan for Washington Township will address energy conservation from the Community Facility standpoint. Currently, the Washington Township Public Works Garage is located near the center of the Township. From the current location, the number of miles driven is minimized and the fuel energy costs are also minimized. If the Township needs to relocate the Public Works Garage to another location, the Township Supervisors should select a geographically central location within the Township. Any improvements in the Township Garage or other buildings should be made with consideration of life cycle costs of energy, operation and maintenance, not just low initial cost.

Washington Township includes extensive land

- The counties should acquire the following types of parks: large community parks, regional parks, regional park reserves, linear parks and conservancy areas.
- Parkland acquisitions that are inaccessible, limited in use potential, or are tied up with legal restrictions or informal understandings with former or neighboring property owners on use of the land should be avoided.
- Once land is acquired for parks or open space, it should not be converted to other uses.
- Municipalities should be responsible for providing mini-parks, neighborhood parks and playgrounds, and community parks.
- High priority should be given to acquiring parkland and open space along rivers and major streams.
- The needs of the handicapped should be considered in any recreation and open space planning.
- Recreation facilities at schools should be available to the public.
- Quasi-public organizations and the private sector should provide special use recreation facilities such as golf courses, camp grounds and ski areas.

GOAL

To preserve open space and important natural areas.

POLICIES

- Important natural areas should be preserved as part of parks and open space areas whenever possible.
- Public and private partnerships should be used whenever possible to preserve open space and important natural areas.
- Promote the preservation and creation of open space and cultural features in the Delaware and Lehigh Navigation Canal National Heritage Corridor and the Delaware River Greenway.

areas where wind mill power generation may be feasible. This Comprehensive Plan recommends that Washington Township consider the possibility of public or private development of wind mills for electric power generation. The first step would be to commission a study of wind speed, wind intensity and consistency of wind in order to determine the feasibility of this concept. If the concept has merit, then any revenues from such a project could help Washington Township to accomplish its public service responsibilities with funding from a non-tax source.

STATEMENT OF PLAN INTER-RELATIONSHIPS

This Comprehensive Plan was prepared with the requirements of Section 301(4.1) of the Pennsylvania Municipalities Planning Code requirements in mind. As a guide, many sections of this Plan relied upon the Lehigh Valley Planning Commission's (LVPC) 2030 comprehensive planning study format and findings. By modeling the Central Slate Belt Regional Planning study after the LVPC, the Bangor, Roseto, East Bangor, and Washington Township region (BREW) regional plan by design included many recommendations from the LVPC draft plan. In addition, the study sought to integrate elements of the comprehensive plan as well as relate this plan to that of the plans of adjacent municipalities. Early in the process, neighboring municipalities were invited to attend one or more of the Central Slate Belt Regional planning meetings.

The Central Slate Belt Regional planning process started with a natural features inventory background study and analysis as one of the earliest background plan reports in a series of background surveys and studies. The Natural Features study conclusions were influential in the formulating the land use plan. The land use plan then drove the transportation and the community facilities and utilities plans. Therefore, each of the major study and plan elements are interrelated. Perfect correlation however, is a goal that is always affected by the real world compromises of individual opinions and interests.

There was a strong attempt to have the land use plan "public interests" influence where both development and infrastructure will take place rather than having developer's "private interests" decide the direction and pace of development. However, again, the real world is not always perfect, but every attempt was made to have municipal plans and policies drive the land development process

STATEMENT REGARDING PLAN RELATIONSHIP TO PLANS FOR ADJACENT COUNTIES AND LOCAL MUNICIPALITIES

Consistent with the requirements of the Pennsylvania Municipalities Planning Code (MPC), this planning process sought to make this Central Slate Belt Regional Plan compatible with the plans and existing land uses in neighboring community lands adjacent to the Central Slate Belt

Municipalities as well as compatible within the Central Slate Belt Regional municipal area.

During the last several months of this Central Slate Belt Regional Planning Program, the draft Regional and local comprehensive plans will be shared with adjacent municipalities and with the Bangor Area School District and the municipal authorities some of which provide sewer, water, waste collection and recycling services. The review comments of these groups as well as comments from the LVPC will be considered before adoption of the Central Slate Belt Regional Plan.

- Many municipalities do not adequately relate land use planning and planning for sewer and water infrastructure. Municipalities need to recognize these connections in local plans and they need to keep their sewer plans mandated by Act 537 up-to-date.
- Planning and zoning in many municipalities is reactive. Municipal plans need to address the goals of the municipality not just react to proposals of developers. Municipalities also need to make fuller use of planning tools enabled by the planning codes.

ENVIRONMENTAL CONSTRAINTS, OPEN SPACE & RECREATION PLANS

Although the original scope of planning program services included a small element with the heading "Environmental Constraints, Open Space & Recreation Plan" as a separate report element, this Central Slate Belt Regional Plan incorporated these elements into the Land Use Plan, and the Community Facilities & Utilities Plan sections and in the background analysis reports and files.

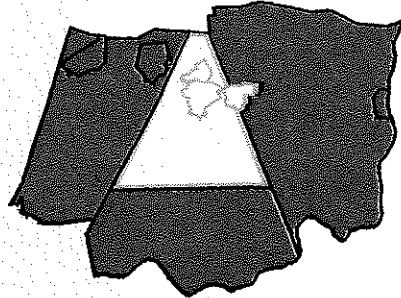
IMPLEMENTATION SHORT & LONG RANGE STRATEGIES

This Central Slate Belt Regional Plan included short and long term planning strategies where appropriate within each plan element.

This Regional and the local Plans include recommendations that in the short range, local Act 537 Official Sewerage Facilities Plans be updated in a coordinated manner with all or at least several of the Central Slate Belt Regional Municipalities to update their Act 537 Plans at the same time within five years of the adoption of this Comprehensive Plan. Then, those updated plans should seek to accommodate the longer range 2010 to 2030 land development policies of this Comprehensive Plan.

Local Comprehensive Plan Sections

Central Slate Belt Region



CHAPTER THREE OF WASHINGTON TOWNSHIP COMPREHENSIVE PLAN

Boroughs of Bangor, Roseto,
East Bangor, Township of Washington
in County of Northampton, Pennsylvania

BACKGROUND SECTION - A

BACKGROUND REPORT - Population, Housing, Citizen Survey, Dated 9-16-2003
BACKGROUND REPORT - Existing Township Owned Community Facilities, Dated 10-2003

BACKGROUND SECTION - B

Natural Inventory Maps

BACKGROUND SECTION - C

Highway Maintenance, Highway Safety, Highway Congestion

BACKGROUND SECTION - D

Transportation Impact Fees

BACKGROUND SECTION - E

Existing Land Use 1972, 1992, 2002

This report was financed, in part, by a grant from the Pennsylvania Department of Community and Economic Development under the Land Use Technical Assistance Planning Program. This program is part of a Multi-municipal Planning Program including the Boroughs of Bangor, East Bangor, Roseto and the Township of Washington.

**Township of Washington Planning Commission
Rodite & Pandl, LLC, Community Planners**

COMPREHENSIVE PLAN

BACKGROUND REPORT

POPULATION, HOUSING, CITIZEN SURVEY

TOWNSHIP OF WASHINGTON

This report was financed, in part, by a grant from the Pennsylvania Department of Community and Economic Development under the Land Use Technical Assistance Planning Program. This program is part of a Multi-municipal Planning Program including the Boroughs of Bangor, East Bangor, Roseto and the Township of Washington.

**Washington Township Planning Commission,
September 16, 2003**

Rodite & Pandl, Community Planners

POPULATION AND HOUSING CHARACTERISTICS AND PROJECTIONS

Washington Township Population Trends and Projections 1960 to 2030- The total Township population increased moderately during the last 40 years. The year 2000 U. S. Census revealed that the Township population was 4,152 persons or 1,453 persons more than resided in the Township at the time of the 1960 Census. The steady increases in Township decennial census population is shown in the following table:

Township of Washington Total Decennial Population 1960-2000		
Year	Population	% Change
1960	2,699	
		+12.5%
1970	3,037	
		+5.5%
1980	3,205	
		+17.3%
1990	3,759	
		+10.5%
2000	4,152	

Source: U.S. Census of Population

Additional population information is presented in the tables at the end of this Background Analysis report section. Highlight from some of those tables include:

- During the 1990 to year 2000 decade the net population increase in Northampton County was 19,961 persons. Taking all Northampton County Boroughs together, their total share of that increase was only 1,314. Almost all of the increase in population was experienced in the Northampton County Townships. (See Table #1)
- Washington Township is part of Multi-municipal Planning Group identified as the Central Slate Belt Region. That planning region includes the Boroughs of Bangor, East Bangor, Roseto, and the Township of Washington (sometimes referred to as the BREW Communities). The population of this Region experienced a net increase of 400 persons during the last decade. This was a percentage increase of 3.42% compared to 8.08% for Northampton County, 7.60% for the Lehigh Valley, 3.36% for the State of Pennsylvania, and 13.15% for the entire Country.
- Washington Township as a percent of the Central Slate Belt Region increased from 32.1% to 34.3% between 1990 and 2000.

The Lehigh Valley Planning Commission (LVPC) forecasts the Township of Washington population to increase significantly to 6,855 persons during the next three decades to the

year 2030. (See Table #2) This Central Slate Belt Regional planning study expands the LVPC's forecast into a range in population for Washington Township that could be between 6,170 persons to 7,198 persons. The high number is based on a Township policy that would encourage residential growth. The low range forecast is based on a Township policy that advocates more conservation of land particularly farm land. It also could be influenced by economic and financial trends such as an extended recession and/or higher mortgage interest rates.

Findings and Observations From Housing Stock Inventory - The year 2000 U.S. Census inventory of Washington Township's Housing reveals the following:

- ◆ **Of the 1,601 housing units occupied , 1,297 or 81% were owner occupied and 304 or 19% were renter occupied**
- ◆ **Of the 69 vacant units, 27 were for rent, 18 for sale, two (2) were rented or sold but not occupied, five (5) were vacant seasonal or recreational use units, and 17 were other – that is, they may have been abandoned**
- ◆ **The vast majority of householders were white, but there was one (1) Black or African American, one (1) American Indian and/or Alaska native, one (1) with Asian heritage, five (5) householders with two or more racial heritages, seven (7) Hispanic or Latino, and three (3) of some other race**
- ◆ **In terms of household relationships, 97.3% of the Township's 4,152 residents in the year 2000 lived in households. The other 2.7% lived in group quarters (Slate Belt Nursing and Rehabilitation Center). There were 865 children under the age of 18 years of age and 78 unmarried partners.**
- ◆ **Looking at households by type, there were 421 non-family households, of those 356 lived alone, and of those 218 were over the age of 65. In addition, there were 516 households with individuals over the age of 65. Not too many more households (533) had children under the age of 18 years of age.**
- ◆ **Average household size in Washington Township was 2.52 persons in the year 2000. The average family size was 2.96 persons. Looking a little closer, we found that the average household size for owner-occupied units was 2.64 and for renter occupied units it was 2.04 persons per unit. There were 304 units rented.**
- ◆ **Inadequate plumbing existed in seven (7) occupied units; six (6) housing units had no telephone.**
- ◆ **The median number of rooms in Washington Township homes was 6.1.**
- ◆ **The vast majority (84.7%) of housing units were in single family houses, 2.7% were in attached housing units, 3.4% were in two family houses, 5.2% were in structures with 20 or more units, and 2.5% of the Township's housing units were in mobile homes.**

- ◆ Generally housing units in the Township are relatively new (about 75% built after 1940), almost 15% were built during the 1990 to 2000 time period.
- ◆ Fuel oil was the most common (66.4%) source of energy for home heating, with electricity second (at 24.1%), gas at 4.4%, coal at 3.1%, and wood at 1.4%.
- ◆ The median value of owner occupied houses in the Township was \$128,000 as compared with the County median value of \$120,000.
- ◆ Average rent was \$517 as compared with the County average rent of \$576.
- ◆ Almost 65% of the people moved into their homes in the Township since 1980.
- ◆ Almost 29% of the households in the Township have three (3) or more vehicles, 38% have two vehicles.
- ◆ Ancestry of Township residents revealed that German was the highest (34%), followed by Italian second (20.9%), Irish (12.8%), English (12.2%), Dutch (9.1%), and Welsh (5.3%).

See the Housing Inventory Tables at the end of this section for additional housing information

Population and Housing Characteristics Relationship to Long Range Community Plan- Washington Township included 1,670 housing units at the time of the year 2000 Census. 69 of those units were vacant. There were 1,601 households in the Township. The average household size was 2.52 persons. Of the 1,601 occupied housing units, 1,297 or 81.0% were owner occupied units and 304 or 19.0% were renter units. During the 10 years between January 1, 1992 and December 31, 2001, 185 housing units were constructed in the Township of Washington. (See Table #3)

Table #4 presents the Natural Increase in Washington Township population during the last decade. During this period, there were a total of 457 births and 542 deaths in Washington Township households. That should have resulted in a Washington Township net population decrease of 62 people. Why then did the Township population actually increase by 393 people (3,759 in 1990 to 4,152 in the year 2000)? There are two possible answers. One is that the Census made a mistake. The other is that there was a net increase in the number of people moving into the Borough. Our conclusion is that the number of people in the new housing units plus the natural increase accounted for the increase (an increase of 393 + 62 that were lost by deaths exceeding births = 455 total in-migration into the Township between 1990 and 2000)

The Lehigh Valley Planning Commission (LVPC) believes that the population increase trend experienced during the last decennial period will continue into the future. The LVPC forecasts the Washington Township population will increase by nearly 65% over the next thirty years.

This Washington Township Comprehensive Plan projects a range of population numbers that could be influenced in part by local Township policies to preserve farm land and open space. Following is a range of population forecasts for Washington Township:

Washington Township Population Forecast Range		
Year 2000 Township population	4,152	Increase
Low population forecast	6,170	+ 48.6%
LVPC forecast	6,855	+ 65.1%
High population forecast	7,198	+ 73.4%

In order to estimate the need for new housing in Washington Township between now and the year 2030, we assumed that household size (for existing households) in the Township as a whole will continue to drop below the current 2.52 persons per household to 2.45, and even lower to 2.4 in the year 2030. **A second assumption is: the household size for new housing will remain around 2.5 persons per household. A third assumption is: half (or 35) of the currently vacant units (69) will be become available for occupancy as affordable rental units. See the table below for the number of housing units required for LVPC population forecast.**

Estimated Housing Units Required for Roseto Mid-range Population Forecast					
Starting # of Housing Units		Year	Forecasted Population	Additional Units Needed	
Owner Units	Renter Units		Mid-range	Owner Units	Renter Units
1,297	304	2000	4,152 (actual)		
				322	81*
1,609	385	2010	5,161	297	74
1,906	459	2020	6,089	245	61
2,151	520	2030	6,855		
		Total		854	216

Note: * Between 15 and 25 of these units will be existing, vacant housing units that will be rehabilitated and will become occupied housing units.
Source: Rodite & Pandl, LLC & Lehigh Valley Planning Commission - Population Forecasts

Population & Housing Relationship to Land Use -The population and housing forecasts to the year 2030 may be used to estimate the amount of land required for several key land uses such as residential land use, transportation (streets), and Parks & Recreation to serve the nearly 2,700 new people who will move into the Township or be born into existing households. The estimated space needs for the housing mid-range projection could be 1,200 to 1,300 acres. That amounts to about 10 to 30 small to medium size farms.

Citizen Attitude Survey

Washington Township

September 2003

In January of 2003, the Washington Township Planning Commission conducted a survey of the citizens of Washington Township. Attitude surveys were sent to residents and business owners asking opinions relative to Township's public facilities and services, the consideration of shared community services with nearby boroughs, regulation of land use and possible new land uses. The survey also asked residents their opinions of many aspects of the community from development to traffic patterns. The survey also gave the planning commission a look at who the residents of Washington Township are, what their life style is like and their concerns regarding the future. Approximately 445 surveys were returned representing nearly 28% of the households in Washington Township. The voting districts were represented in the following manner; District #1 – 69% of responders; District #2 – 21% of responders. The following is a brief summary of the results from these residents and business owners. **(Please be aware the following percentages are computed from responses for that specific question. Total percentages are rounded and may not total 100%)**

Residents were asked how they felt about the population growth in Washington Township. 57% of 407 responders felt growth was too great. Many comments were added saying, ***“Stop the developers, keep the rural setting of our home.”***

The activities and facilities were rated according to interest of the community residents. Below are the top five (5) interests as well as the bottom five (5) responses.

Most Important Interests of the Township Survey Respondents:

1. Preserve Open Space – 78%
2. Preserve and enhance watershed areas and water quality – 75%
3. Preserve agricultural land and farms – 74%
4. Monitor Stream Quality – 73%
5. Manage Growth – 70%

Least Important Interests of the Township Survey Respondents:

1. Develop Horseback Riding Trails – 62%
2. Develop entranceway and landscaping into Washington Township – 61%
3. Require developers to install sidewalks – 54%
4. Develop trails for biking – 35%
5. Develop trails for walking – 31%

Residents were asked to rank the top three (3) transportation problems in Washington Township. A resounding 77% of responders ranked road

maintenance as the number one problem. Poor Intersections (64%) and Narrow Roads (59%) were the other two top ranking transportation problems.

Issues Washington Township residents are facing, was another question asked. Again Managed Growth (50%) was the resounding top issue of responders. Good schools (37%), Farmland Preservation (29%), Local Employment Opportunities (28%) and Open Space Preservation (27%) were the top issues residents and business owners are most concerned about.

Intercommunity Cooperation with walking trails, police protection, fire protection, and code enforcement was well received by the responders in Washington Township (69%, 77%, 83%, and 51% of residents respectively, felt positively about these issues.). Taxes were however a concern in sharing with other Boroughs.

The survey asked residents to profile themselves. It asked for household makeup, employment status and location, reasons for living in Washington Township, age of home and voting district. From the surveys received 38% of families have 2 members, and 35% have 3-4 members. Of these households, 73% have children under 8 years of age, 55% have children between 8-18 years of age. Senior citizens make up 58% of families and 87% of those surveyed have some sort of disability. 70% of the children in Washington Township attend public school, 13% attend private school and 21% attend college.

When asked why they live in Washington Township 35% said they wanted the rural setting and 16% said they were born and raised here. 15% said they wanted to be near family and friends, and 12% said it was convenient to work. Low taxes was a reason for 10% of the community.

There were questions asked about the employment status of people surveyed. 40% of those surveyed have 2 family members who work and 32% have 1 family member working. 40% of the males commute 0-10 miles to work where as 53% of the females commute 0-10 miles from their home. 31% of both females and males work 10-25 miles from their home. Some good news, the survey shows 51% of workers work in Northampton County and only 20% of workers leave Pennsylvania to work. 22% of workers own their own business. 35% of those in Washington Township and 9% are home-based businesses.

The homes of Washington Township show a lot of history. Newer homes, those built within 10 years, make up 25% of those responding. Homes built 11-50 years ago make up 47% of those responding. 22% of homes are 51-150 years old, and 2.5% of homes are 151-250 years old. Despite the history and abundance of the older homes, older than 50 years, 77% were not interested in grants or loans for home improvement.

The development of Washington Township has been an issue throughout this survey. One of the questions asked in the survey, "What road provides access to your home?" indicates where most of those responding to the survey live: Locke Heights Rd.- 7%, Rt. 191 – 12.26%, Rutt Rd. – 4%, and Richmond Rd. – 4% were the roads with the most responders.

The survey asked citizens for their voice and the planning commission now can interpret those voices. It would appear that the citizens responding to this survey would support: Managed Development with larger lot sizes to keep

the rural beauty of the community, preservation of farmland, tax help, and sewer and water quality control are all issues the responders felt very strong about. There were also many responders who thanked the commission for continuing to survey the community. They feel their voice is being heard and hope for changes that reflect their opinions and desires for the better of the community known as Washington Township.

(See the tables at the end of this report for a tabulation of survey responses. Please be aware the percentages were computed from responses for each specific question. Total percentages were computer rounded and may not total 100%)

Washington Township Resident and Business Owner Survey Results

1. Has population growth in Washington Township been ___too great, ___too little, or ___about right?

	# of responses	Percentage
too great:	231	57%
too little:	9	2%
about right:	167	41%

2. Express your interest in the following activities and facilities:

	# responses	High	%	Medium	%	Low	%
a. Need to manage the speed of land development in Washington Township	441	310	70%	107	24%	24	5%
b. Need to manage the extent of development in Washington Township	441	300	68%	117	27%	24	5%
c. Preservation of open space in Washington Township	445	346	78%	73	16%	26	6%
d. Preservation of quality agricultural land and more prosperous farms	442	329	74%	80	18%	33	7%
e. Monitor stream quality	444	322	73%	99	22%	23	5%
f. Monitor subsurface water aquifers from which well water is derived	445	310	70%	108	24%	27	6%
g. Need to preserve and enhance watershed areas and water quality	442	325	75%	101	23%	16	4%
h. Desirability for working with adjacent Boroughs to slow storm water flow	437	162	38%	205	47%	70	16%
i. Use land use incentives (i.e. tree plantings) to absorb storm water	334	191	58%	190	57%	53	16%
j. Develop trails for walking	443	152	34%	153	35%	138	31%
k. Develop trails for biking	437	128	30%	157	36%	152	35%
l. Develop trails for all-terrain vehicles & snow mobiling	433	61	14%	71	16%	301	70%
m. Develop trails for horse back riding	442	69	16%	91	21%	272	62%
n. Require developers to install sidewalks	433	90	21%	109	25%	234	54%
o. Erect special Township entranceway signs with nice landscaping	433	37	9%	131	30%	265	61%
p. Attract businesses to locate in the Township	435	217	51%	136	31%	82	19%
q. Support Bangor's efforts to revitalize their downtown area	435	190	45%	172	40%	73	17%
r. Need to improve local, Township police protection	429	137	33%	215	50%	76	18%

#1 Other Comments?

What would be nice is to have a planning commission who lived in our area, paid our high taxes, and was a little bit more educated than what we appear to have!

What does our police department do except ride around & go on calls? What revenue from arrests and fines is in treasury?

We're not going to be able to afford to won and live in our community because of the growth of outsiders and inflated land prices.

We moved here to get away from sprawl and now know of at least 75 new homes being built w/in 2-3 miles of our home.

We definitely need to monitor housing growth in area.

Way too much residential building-cut back, ensure at least one acre per new home. Assess builders'-we can't afford school taxes.

Water and Sewer will be a problem

Too much traffic on secondary roads

Too much open space is disappearing. We must find a way to control growth. Enough housing developments!

Too much development

Too many wooded lands disappearing

Too many developments going up Too many people moving in from out of area

To slow development-make a lot size 2 or 2.5 acres to build

They are taking all our fields and woods away!

Take a look at Forks Twship - we will be next

Stop it now before it is too late/up the minimum lot size to 3 acres

Slow it down to keep our rural community

School has not grown with population. Township should plan ahead.

Save our farm and natural land

Residential Developments will require tax increases!

Preserve farm land and open space

Poor road lay out for growth

Our schools are to full. New York and New Jersey people need to be turned away from Bangor!

Ok. People want to buy here.

ok

Not as high as other areas around Northampton Cty. but it needs to slow down or we won't have room in the schools

Need to keep eye on number of developments comin in.

Need to encourage more business/commercial development

need more industry

Need more community services

More people - bigger school means higher taxes

More building means higher school tax

lower taxes

losing too much valuable farm land to development when the land is gone, its gone for good!

Keep out of state people away

Keep Jersey people in Jersey

It's still coming!

It's almost too late/most farms are gone
It takes too long to get permission to build in this township.
In light of the dev. Happening in twp. We need to be careful it doesn't turn into another Forks twp - very little open space!
I haven't lived here long enough to answer these questions
I have seen a lot of growth since moving here in May 2002
I am concerned about our water table and sewage
How can you allow new homes to be built in a swampy area full of springs? Behind barber shop former plush land
Haven't lived here that long to know what growth has occurred.
Growth management is handled properly in Wash. Twp. Managed population helps local economy.
Growing too fast and taxes are increasing which retired people can't afford.
Good at first, then went too far.
Forget about horse trails - not compatible with other forms of recreation.
Example: Jacobs Manor Subdivision pushed through without resident input.
Could be a little slower
Concrens are wells, sewage, traffic & school taxes
Cluster developments should be planned.
about right with building plans now
A lot right now
191 is going to be a two lane Rt 22 if all the houses keep being built.

3. Rank the top three transportation problems in Washington Township

	# responses	Most Important %	Important %	Important to a lesser degree %	Not Rated but checked off %
a. Narrow Roads	238	29%	71	30%	21
b. Traffic Congestion	159	21%	48	30%	6
c. Poor Intersections	208	30%	70	34%	14
d. Road Maintenance	278	51%	71	26%	24
e. Lack of Bikeways	152	13%	45	30%	7
f. Speed Limit Signs	192	24%	62	32%	20
g. Sidewalk/pedestrian crossings	147	14%	38	26%	12
h. Lack of safe recreational walkways	209	24%	59	28%	20

- a. Narrow Roads
- b. Traffic Congestion
- c. Poor Intersections
- d. Road Maintenance
- e. Lack of Bikeways
- f. Speed Limit Signs
- g. Sidewalk/pedestrian crossings
- h. Lack of safe recreational walkways

4. Rank the top five issues facing Washington Township, with 1 being most important to 5.

	# responses	#1	%	#2	%	#3	%	#4	%	#5	%	Not rated but checked off	%
a. Affordable housing	149	25	17%	31	21%	32	21%	15	10%	38	26%	8	5%
b. Good schools	232	85	37%	48	21%	31	13%	28	12%	29	13%	11	5%
c. Managed growth	328	163	50%	43	13%	63	19%	30	9%	22	7%	7	2%
d. Traffic conditions	165	22	13%	31	19%	37	22%	42	25%	24	15%	9	5%
e. Road conditions	229	47	21%	45	20%	50	22%	43	19%	39	17%	5	2%
f. Recreational maintenance	174	19	11%	21	12%	46	26%	34	20%	48	28%	6	3%
g. Lack of bikeways	118	10	8%	13	11%	27	23%	28	24%	38	32%	2	2%
h. Open space preservation	310	85	27%	91	29%	73	24%	35	11%	22	7%	4	1%
i. Farmland preservation	313	92	29%	76	24%	62	20%	45	14%	27	9%	11	4%
j. Sidewalk/pedestrian crossing	87	5	6%	12	14%	22	25%	17	20%	29	33%	2	2%
k. Lack of safe recreational walkways	137	12	9%	18	13%	36	26%	27	20%	40	29%	4	3%
l. Local shopping opportunities	179	28	16%	32	18%	36	20%	32	18%	42	23%	9	5%
m. Local employment opportunities	268	75	28%	46	17%	40	15%	39	15%	49	18%	19	7%

- a. Affordable housing
- b. Good schools
- c. Managed growth
- d. Traffic conditions
- e. Road conditions
- f. Recreational maintenance
- g. Lack of bikeways
- h. Open space preservation
- i. Farmland preservation
- j. Sidewalk/pedestrian crossing
- k. Lack of safe recreational walkways
- l. Local shopping opportunities
- m. Local employment opportunities
- o. (Mostly comments)

5. Would you like to see more inter-community cooperation?

- a. Walking trails
- b. Police protection
- c. Fire protection
- d. Codes
- e. Other

# responses	Yes	%	No	%
401	277	69%	124	31%
415	318	77%	97	23%
403	335	83%	68	17%
340	173	51%	167	49%

(mostly comments)

6. Please tell us about yourself:

a. How many people are in your household?

1	2	3-4	5-6	more than 6
67	169	156	50	4
15%	38%	35%	11%	1%

b. # of children under 8 children between 8-18

0	211	73%	129	55%
1	45	16%	53	23%
2	24	8%	37	16%
3	7	2%	12	5%
4	0	0%	2	1%
5	0	0%	0	0%
6	1	0%	0	0%

c. # of Senior Citizens in your household?

0	226	58%
1	71	18%
2	90	23%
3	2	1%

d. # of family members with disabilities?

0	299	87%
1	39	11%
2	6	2%

e. # of Students in household?

0	197
1	53
2	56
3	16
4	4

f. Do you own the home where you live?

Yes	418	94%
No	27	6%

(size of lot & age still need to be averaged)

Does the disability cause access problems at home?

Yes	10	13%
No	70	88%

How many attend: Public Private College Tech/specialized

	70%	13%	21%	1%
0	18	20	18	19
1	50	13	33	3
2	41	7	8	0
3	14	2	1	0
4	2	0	0	0
5	1	0	0	0

(Cumulative Total/Total times answered)

g.

Does your home need repair?		Would you be interested in housing rehab grants or loans?	
Yes	105	25%	75
No	313	75%	249
			23%
			77%

h.

How many years have you lived in Washington Twsp?	
(still to come)	

i.

Why did you choose to live in Washington Twsp?		
born & raised	124	16%
near friends & family	122	15%
convenient to work	96	12%
rural setting/nat.envir.	275	35%
school system	45	6%
housing style	57	7%
low taxes	77	10%

Is a female head of this household?

Yes	73	19%
No	317	81%

j.

How far is their commute to work?		
	Male	Female
0-10	123	129
	40%	53%
10-25	95	74
	31%	31%
25-50	50	26
	16%	11%
50+	34	13
	11%	5%

k. How many are employed:

	In Northampton Cty	Out of N. Cty but in PA	Outside PA
0	100	122	89
1	132	57	86
2	92	9	26
3	15	2	1
4	4	0	1
Cumulative Total/	377	81	145
Total times answered	736	11%	20%

Table #1

Total Population Trends 1990 to 2000			
Municipalities in Northampton County, PA			
Municipality	1990	2000	% Change
United States	248,709,873	281,421,906	13.15%
State of Pennsylvania	11,881,643	12,281,064	3.36%
Lehigh Valley, PA	538,235	579,156	7.60%
Township of Washington	3,759	4,152	10.45%
Bethlehem City(part)*	71,427	71,329	-0.14%
Easton City	26,276	26,263	-0.05%
Bangor	5,383	5,319	-1.19%
Bath Borough	2,358	2,678	13.57%
Chapman Borough	254	234	-7.87%
East Bangor Borough	1,006	979	-2.68%
Freemansburg Borough	1,946	1,897	-2.52%
Glendon Borough	391	367	-6.14%
Hellertown Borough	5,662	5,606	-0.99%
Nazareth Borough	5,713	6,023	5.43%
North Catasauqua Borough	2,867	2,814	-1.85%
Northampton Borough	8,717	9,405	7.89%
Pen Argyl Borough	3,492	3,615	3.52%
Portland Borough	516	579	12.21%
Roseto Borough	1,555	1,653	6.30%
Stockertown Borough	641	687	7.18%
Tatamy Borough	873	930	6.53%
Walnutport Borough	2,055	2,043	-0.58%
West Easton Borough	1,161	1,152	-0.78%
Wilson Borough	7,830	7,682	-1.89%
Wind Gap Borough	2,741	2,812	2.59%
Subtotal all Boroughs	55,161	56,475	2.38%
Allen Township	2,626	2,630	0.15%
Bethlehem Township	16,425	21,171	28.89%
Bushkill Township	5,512	6,982	26.67%
East Allen Township	4,572	4,903	7.24%
Forks Township	5,923	8,419	42.14%
Hanover Township	7,176	9,563	33.26%
Lehigh Township	9,296	9,728	4.65%
Lower Mount Bethel Twsp.	3,187	3,228	1.29%
Lower Nazareth Township	4,483	5,259	17.31%
Lower Saucon Township	8,448	9,884	17.00%
Moore Township	8,418	8,673	3.03%
Palmer Township	14,965	16,809	12.32%
Plainfield Township	5,444	5,668	4.12%
Upper Mount Bethel Twsp.	5,476	6,063	10.72%
Upper Nazareth Township	3,413	4,426	29.68%
Washington Township	3,759	4,152	10.45%
Williams Township	3,982	4,470	12.26%
Subtotal all Townships	113,105	132,028	16.73%
Northampton County Total	247,105	267,066	8.08%

Source & note: U.S. Census Bureau; * Bethlehem City is in two counties.
 Calculations by Rodite & Pandl Community Planners

Table #2

Population Trends and Forecasts
Township of Washington & County of Northampton

	Washington Township	Northampton County	Township as % of County
1960	2,699	201,412	1.34%
1970	3,037	214,368	1.42%
1980	3,205	225,418	1.42%
1990	3,759	247,105	1.52%
2000	4,152	267,066	1.55%

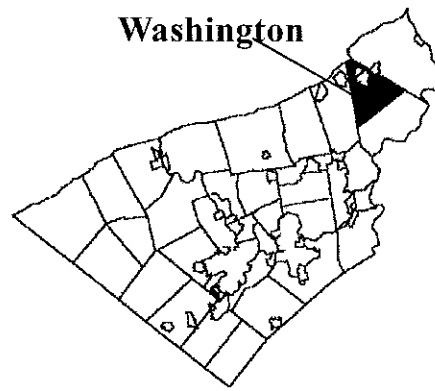
Note: forecast range prepared for Township only.

2010 low	4,645	290,919	1.77%
medium	5,161		
2010 high	5,419		
2020 low	5,480	316,052	1.93%
medium	6,089		
2020 high	6,393		
2025 low	5,825	Not published by LVPC	
medium	6,472		
2025 high	6,796		
2030 low	6,170	341,518	2.01%
medium	6,855		
2030 high	7,198		

Source: U.S. Census Bureau, forecasts by Lehigh Valley Planning Commission, calculations and forecast range by Rodite & Pandl LLC, Community Planners

Table #3 Washington Township

County: Northampton
 Type of Municipality: Township, Second Class
 School District: Bangor Area



Municipal Address:
 Municipal Building
 4 Flicksville Road
 Bangor, Pennsylvania 18013
 Telephone: (610) 588-1524
 FAX: (610) 588-0245

Land Use 2001 (in acres)

Residential	2,637.3	(23.1%)
Commercial	79.8	(0.7%)
Industrial	147.5	(1.3%)
Wholesale & Warehousing	32.8	(0.3%)
Transp., Comm. & Utilities	355.8	(3.1%)
Public & Quasi-Public	80.3	(0.7%)
Parks & Recreation	118.2	(1.0%)
Agriculture & Vacant	7,987.3	(69.8%)
Total Acres	11,439.0	(100.0%)

Area: 17.87 sq. mi.

Population Density 2000: 232 / sq. mi.

Assessed Value of Taxable Real Estate

1991	\$96,224,200
2003	\$107,407,600
Change	\$11,183,400 (11.6%)

Real Estate Tax Millage Rates 2003

Municipal	1.76
School District	36.80
County	7.50
Total	46.06

Population

1960 census	2,699
1970 census	3,037
1980 census	3,205
1990 census	3,759
2000 census	4,152
2010 forecast	5,161
2020 forecast	6,089

Housing Characteristics 2000

Total households	1,601
Persons per household	2.52
Total housing units	1,670
Occupied housing units	1,601 (100.0%)
Owner occupied	1,297 (81.0%)
Renter occupied	304 (19.0%)
Vacant housing units	69
Median value-owner occupied (2000)	\$128,000
Median monthly contract rent (2000)	\$517

New Housing Construction (No. of units)

1992 - 1	1997 - 16
1993 - 13	1998 - 17
1994 - 14	1999 - 17
1995 - 23	2000 - 24
1996 - 18	2001 - 42

Sex Data 2000

Male	2,001	(48.2%)
Female	2,151	(51.8%)

Age Data 2000

Median age	42.4
Under 18 years	928 (22.4%)
65 years and over	799 (19.2%)

Income & Poverty Status 1999

Median household income	\$48,728
Median family income	\$54,601
Per capita income	\$22,219
Persons below poverty level	234 (5.8%)

Selected Race & Hispanic Origin Characteristics 2000

White	4,117 (99.2%)
Black or African American	2 (0.0%)
American Indian, Alaska Native	3 (0.1%)
Asian	4 (0.1%)
All Others	26 (0.6%)
Hispanic or Latino (origin any race)	28 (0.7%)

Educational Attainment 2000 (persons 25 years and over)

No high school degree	602 (20.1%)
High school graduate only	1,287 (43.0%)
Some college/associate degree	660 (22.0%)
Bachelor's or graduate degree	446 (14.9%)
High school degree or higher	79.9%

Ancestry 2000 (top 5 listed)

Total reported	5,161 (100.0%)
German	1,411 (27.3%)
Italian	868 (16.8%)
Irish	533 (10.3%)
English	505 (9.8%)
Dutch	377 (7.3%)

Place of Work 2000 (workers 16 years & over)

Worked in Washington	225 (11.1%)
Worked outside Washington	1,798 (88.9%)

Occupation 2000 (employed persons 16 years & over)

Management, professional	600 (29.2%)
Service occupations	214 (10.4%)
Sales & office	504 (24.5%)
Farming, fishing & forestry	4 (0.2%)
Construction, extraction, maint.	245 (11.9%)
Production, trans., mat. moving	488 (23.8%)
Total employed	2,055 (100.0%)

Table #4

Natural Population Increase (1990 - 2000) Township of Washington, PA			
	Births	Deaths	Natural Increase
1990	57	44	13
1991	50	35	15
1992	53	36	17
1993	31	44	-13
1994	55	63	-8
1995	39	61	-22
1996	35	55	-20
1997	39	47	-8
1998	36	62	-26
1999	31	41	-10
Subtotal	31	54	-62
2000	457	542	-85
2001*	29	51	-22

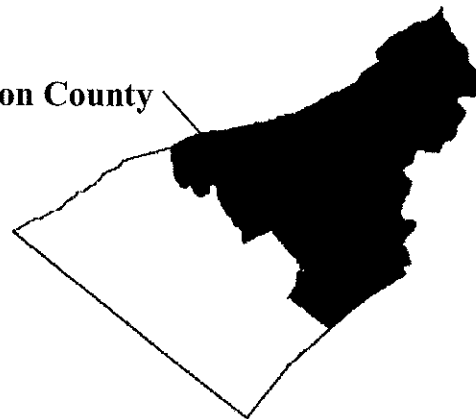
Source: Pennsylvania Department of Health, calculations by Rodite & Pandl, LLC, Community Planners
 Note: * Preliminary information

Planning Issue: #1. Considering Natural Increase alone indicates that the Township population should have decreased by 85 persons. Instead, the actual increase between the 1990 and the year 2000 U. S. Census of Population was (4,152-3,759 =) 393. Usually, the answer to this difference (85+393= 478) is the result of in-migration in the form of new home owners or occupancy of newly created apartments.

Planning Issue: #2. According to the new housing construction records from 1992 to the year 2001, there were 185 (see table #3) housing units created during that 10 year period. If we multiply that number of units times the average family size (2.58 persons per household) in 1990, we should have gained (185 x 2.52=) 466 persons. This appears to support the situation that the increase in Township population was mostly influenced by in-migration of new families into the Township.

Table #5 Northampton County

Northampton County



Land Use 2001 (in acres)

Residential	59,891.1	(24.7%)
Commercial	3,450.1	(1.4%)
Industrial	6,941.5	(2.9%)
Wholesale & Warehousing	3,221.2	(1.3%)
Transp., Comm. & Utilities	17,089.6	(7.0%)
Public & Quasi-Public	3,657.2	(1.5%)
Parks & Recreation	16,614.3	(6.8%)
Agriculture & Vacant	132,178.8	(54.4%)
Total Acres	243,043.8	(100.0%)

Area: 379.8 sq. mi.

Population Density 2000: 703 / sq. mi.

Assessed Value of Taxable Real Estate

1991	\$5,499,151,200	
2003	\$6,471,525,400	
Change	\$972,374,200	(17.7%)

Population

1960 census	201,142
1970 census	214,545
1980 census	225,418
1990 census	247,105
2000 census	267,066
2010 forecast	290,919
2020 forecast	316,052

Housing Characteristics 2000

Total households	101,541
Persons per household	2.53
Total housing units	106,710
Occupied housing units	101,541 (100.0%)
Owner occupied	74,464 (73.3%)
Renter occupied	27,077 (26.7%)
Vacant housing units	5,169
Median value-owner occupied (2000)	\$120,000
Median monthly contract rent (2000)	\$576

New Housing Construction (No. of units)

1992 - 1,064	1997 - 1,018
1993 - 983	1998 - 1,339
1994 - 1,115	1999 - 1,165
1995 - 1,181	2000 - 1,353
1996 - 1,128	2001 - 1,351

Sex Data 2000

Male	129,961	(48.7%)
Female	137,105	(51.3%)

Age Data 2000

Median age	38.5
Under 18 years	62,267 (23.3%)
65 years and over	42,030 (15.7%)

Income & Poverty Status 1999

Median household income	\$45,234
Median family income	\$53,955
Per capita income	\$21,399
Persons below poverty level	20,404 (7.9%)

Selected Race & Hispanic Origin Characteristics 2000

White	243,639	(91.1%)
Black or African American	7,400	(2.8%)
American Indian, Alaska Native	408	(0.2%)
Asian	3,657	(1.4%)
Other	11,962	(4.5%)
Hispanic or Latino (origin any race)	17,868	(6.7%)

Educational Attainment 2000 (persons 25 years and over)

No high school degree	34,730	(19.3%)
High school graduate only	65,750	(36.5%)
Some college/associate degree	41,440	(23.0%)
Bachelor's or graduate degree	38,098	(21.2%)
High school degree or higher	80.7%	

Ancestry 2000 (top 5 listed)

Total reported	311,509	(100.0%)
German	74,315	(23.9%)
Italian	37,954	(12.2%)
Irish	33,957	(10.9%)
English	18,777	(6.0%)
Polish	14,429	(4.6%)

Place of Work 2000 (workers 16 years & over)

Worked in Northampton County	68,449	(64.3%)
Worked outside Northampton County	38,001	(35.7%)

Occupation 2000 (employed persons 16 years & over)

Management, professional	40,191	(31.4%)
Service occupations	17,939	(14.0%)
Sales & office	34,571	(27.1%)
Farming, fishing & forestry	297	(0.2%)
Construction, extraction, maint.	11,723	(9.2%)
Production, trans., mat. moving	23,089	(18.1%)
Total employed	127,810	(100.0%)

Table #6 - HOUSING UNIT OCCUPANCY STATUS Washington Township Northampton County, Pennsylvania	
Total:	1670
Occupied	1601
Vacant	69

Source: U.S. Census Bureau Census 2000; Summary File 4 (SF-4) Sample Data, Table DP – 1

#7 - TENURE OF OCCUPIED HOUSING UNITS Township of Washington Northampton County, Pennsylvania		
Total:	1,601	100.0%
Owner occupied	1,297	81.0%
Renter occupied	304	19.0%

Source: U.S. Census Bureau Census 2000; Table DP – 1. Profile of General Characteristics: 2000

#8 - VACANT HOUSING UNITS Township of Washington Northampton County, Pennsylvania		
Total:	69	100.0%
For rent	27	39.1%
For sale only	18	26.1%
Rented or sold, not occupied	2	2.9%
For seasonal, recreational, or occasional use	5	7.2%
For migrant workers	0	0%
Other vacant	17	24.6%

U.S. Census Bureau, Census 2000, Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data QT – H1

**#9 - RACE OF HOUSEHOLDER IN OCCUPIED HOUSING UNITS
Township of Washington
Northampton County, Pennsylvania**

Total in occupied housing units:	1,601	100.0%
Householder is of one race:	1,596	99.7%
Householder who is White alone	1,590	99.3%
Householder who is Black or African American alone	1	.1%
Householder who is American Indian and Alaska Native alone	1	.1%
Householder who is Asian alone	1	.1%
Householder who is Native Hawaiian and Other Pacific Islander alone	0	
Householder who is Some other race alone	3	.1%
Householder who is Two or more races	5	.3%

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data QT – H1

**#10 - HISPANIC OR LATINO HOUSEHOLDERS BY RACE OF
HOUSEHOLDER OF OCCUPIED HOUSING UNITS
Township of Washington
Northampton County, Pennsylvania**

Total:	1,601	100.0%
Hispanic or Latino (of any race)	7	.4%
Not Hispanic or Latino	1,594	99.6%
White alone	1,586	99.1%

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data QT – H1

**#11 – RELATIONSHIP IN HOUSEHOLD
Township of Washington
Northampton County, Pennsylvania**

Total Population:	4,152	
Total in Households	4,040	97.3%
Householder	1,601	39.6%
Spouse	1,005	24.9%
Child	1,148	28.4%
Own child under 18 years of age	865	21.4%
Other Relatives	155	3.8%
Unmarried Partners	78	1.9%
In Group Quarters	112	2.7%
Institutionalized	112	2.7%
Non-institutionalized	0	0%

#12 – HOUSEHOLD BY TYPE		
Township of Washington		
Northampton County, Pennsylvania		
Total Households:	1,601	100.0%
Family Households (families)	1,180	73.7%
With own children under 18	491	30.7%
Married couple families	1,005	62.8%
With own children under 18	423	26.4%
Female householder, no husband present	98	6.1%
With own children under 18	41	2.6%
Non-family households	421	6.3%
Householder living alone	356	22.2%
Householder 65 and older	218	13.6%
<i>Households with individuals under 18</i>	533	33.3%
<i>Households with individuals 65 and older</i>	516	32.2%

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data Table DP- 1

#13 – AVERAGE HOUSEHOLD AND FAMILY SIZE	
Township of Washington	
Northampton County, Pennsylvania	
Average household size	2.52
Average family size	2.96

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) 100-Percent Data Table DP- 1

#14 – HOUSING TENURE		
Township of Washington		
Northampton County, Pennsylvania		
Occupied housing units	1,601	100.0%
Owner occupied housing units	1,297	81.0%
Renter occupied housing units	304	19.0%
Average household size of owner-occupied units	2.64	
Average household size of renter-occupied units	2.04	

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) 100-Percent Data Table DP- 1

#15 – HOUSING LACKING SOME FACILITIE & SERVICES
Township of Washington
Northampton County, Pennsylvania

Lacking complete plumbing facilities	7	.4%
Lacking complete kitchen facilities	7	.4%
No telephone service	6	.4%

U.S. Census Bureau Census 2000 Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data Table H22

#16 – ROOMS IN STRUCTURE
Township of Washington
Northampton County, Pennsylvania

1 room	9	.5%
2 rooms	7	.4%
3 rooms	112	6.7%
4 rooms	171	10.2%
5 rooms	267	16.0
6 rooms	468	28.0
7 rooms	273	16.3
8 rooms	225	13.5
9 or more rooms	138	8.3
Median (rooms)	6.1	-

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

#17 - UNITS IN STRUCTURE
Washington Township, Roseto and East Bangor Boroughs, & USA

	United States	Washington Township	East Bangor	Roseto
Total:	115,904,641	1,670	100.0%	417
1, detached	69,865,957	1,414	84.7%	244
1, attached	6,447,453	41	2.5%	56
2	4,995,350	57	3.4%	22
3 or 4	5,494,280	15	.9%	6
5 to 9	5,414,988	9	.5%	31
10 to 19	4,636,717	6	.4%	3
20 or more	10,008,058	87	5.2%	0
Mobile home	8,779,228	41	2.5%	55
Boat, RV, van, etc.	262,610	0	0%	0

U.S. Census Bureau, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

**#18 – YEAR STRUCTURE BUILT
Township of Washington
Northampton County, Pennsylvania**

1999 to March 2000	33	2.0%
1995 to 1998	82	4.9%
1990 to 1994	129	7.7%
1980 to 1989	217	13.0%
1970 to 1979	262	15.7%
1960 to 1969	182	10.9%
1940 to 1959	341	20.4%
1939 or earlier	424	25.4%

U.S. Census Bureau Census 2000 Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

**#19 – NUMBER OF ROOMS IN OCCUPIED STRUCTURES
Township of Washington
Northampton County, Pennsylvania**

1 room	9	.5%
2 rooms	7	.4%
3 rooms	112	6.7%
4 rooms	171	10.2
5 rooms	267	16.0%
6 rooms	468	28.0%
7 rooms	273	16.3%
8 rooms	225	13.5%
9 or more rooms	138	8.3%
Median (rooms)	6.1	-

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data H32

**#20 – HOUSE HEATING FUEL
Township of Washington
Northampton County, Pennsylvania**

Utility gas	36	2.2%
Bottled, tank, or LP gas	35	2.2%
Electricity	386	24.1%
Fuel oil, kerosene, etc.	1,063	66.4%
Coal or coke	50	3.1%
Wood	23	1.4%
Solar energy	-	-
Other fuel	8	.5%
No fuel used	-	-

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

**#21 – VALUE OF OWNER OCCUPIED HOUSING UNITS
Township of Washington
Northampton County, Pennsylvania**

Specified owner-occupied units	1,112	
House values		
Less than \$50,000	8	.7%
\$50,000 to 99,000	244	21.9%
\$100,000 to 149,999	520	46.8
\$150,000 to 199,999	233	21.0%
\$200,000 to 299,999	107	9.6%
\$300,000 to 499,999	-	-
\$500,000 to 999,999	-	-
\$1,000,000 and more	-	-
Median (dollars)	\$128,000	-

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

#22 – GROSS RENT		
Township of Washington		
Northampton County, Pennsylvania		
Specified renter occupied units	285	100.0%
GROSS RENT PER MONTH		
Less than \$200	44	15.4%
\$200 to 299	54	18.9%
\$300 to 499	23	8.1%
\$500 to 749	100	35.1%
\$750 to 999	23	8.1%
\$1,000 to 1,499	12	4.2%
\$1,500 and more	-	-
No cash rent	29	10.2%
Median rent (dollars)	\$517	

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

#23 - YEAR HOUSEHOLDER MOVED INTO HOUSING UNIT		
Township of Washington		
Northampton County, Pennsylvania		
Occupied housing units		
YEAR HOUSEHOLDER MOVED INTO UNIT		
1999 to March 2000	148	9.2%
1995 to 1998	346	21.6%
1990 to 1994	215	13.4%
1980 to 1989	341	21.3%
1970 to 1979	192	12.0%
1969 or earlier	359	22.4%

U.S. Census Bureau Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data H38

#24 - VEHICLES AVAILABLE – OCCUPIED HOUSING UNITS		
Township of Washington		
Northampton County, Pennsylvania		
VEHICLES AVAILABLE		
None	109	6.9%
1	421	26.3%
2	609	38.0%
3 or more	462	28.9%

U.S. Census Bureau, Census 2000, Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 4

**#25 – ANCESTRY (single or multiple)
Township of Washington
Northampton County, Pennsylvania**

Total population	4,152	100.0%
(Total ancestries reported)	5,161	124.3%
Arab	-	-
Czechoslovakian	19	.5%
Danish	4	.1%
Dutch	377	9.1%
English	505	12.2%
French (except Basque)	101	2.4%
French Canadian	16	.4%
German	1,411	34.0%
Greek	-	-
Hungarian	113	2.7%
Irish	533	12.8%
Italian	868	20.9%
Lithuanian	-	-
Norwegian	7	.2%
Polish	143	3.4%
Portuguese	-	-
Russian	42	1.0%
Scotch-Irish	39	.9%
Scottish	54	1.3%
Slovak	61	1.5%
Subsaharan African	-	-
Swedish	44	1.1%
Swiss	10	.2%
Ukrainian	27	.7%
United States or American	184	4.4%
Welsh	220	5.3%
West Indian (excluding Hispanic groups)	-	-
Other ancestries	383	9.2%

U.S. Census Bureau Census 2000 , Data Set: Census 2000 Summary File 3 (SF 3) – Table DP- 2

Preliminary Draft Report
For Review and Comments
Prior to Report Finalization

COMPREHENSIVE PLAN

BACKGROUND REPORT

Existing Township Owned Community Facilities

TOWNSHIP OF WASHINGTON

**Northampton County, PA
October 2003**

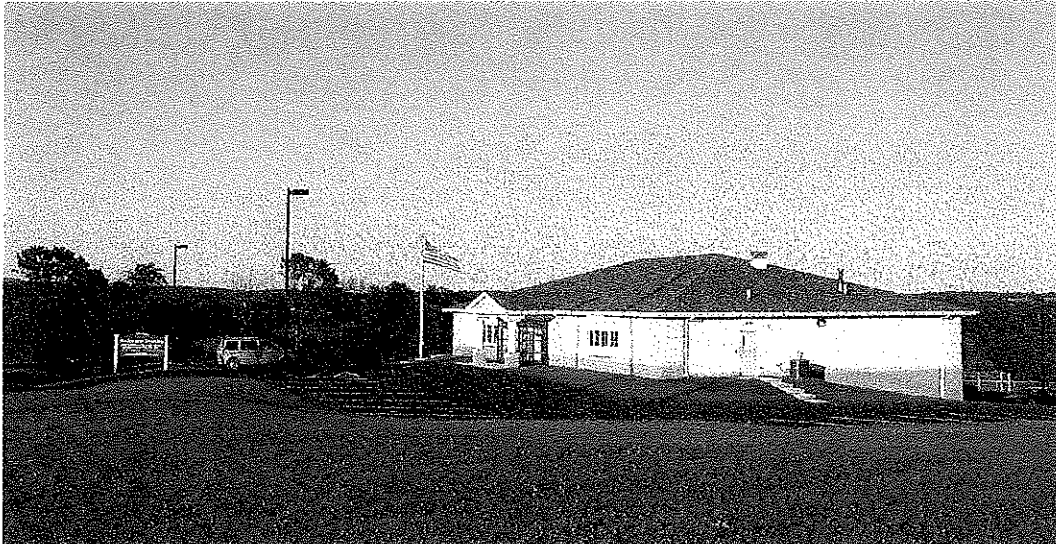
This report was financed, in part, by a grant from the Pennsylvania Department of Community and Economic Development under the Land Use Technical Assistance Planning Program. This program is part of a Multi-municipal Planning Program including the Boroughs of Bangor, Roseto, East Bangor and the Township of Washington.

**Rodite & Pandl, Community Planners
Washington Township Planning Commission**

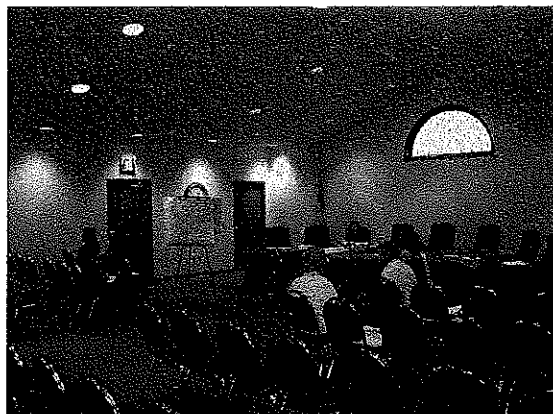
Existing Township Owned Community Facilities
Township of Washington, Northampton County, PA
October 2003

Washington Township Municipal Complex

This year Washington Township constructed and dedicated a new municipal building (picture below) and a park facility on nearly 68 acres of land. This Complex fronts on State Route 191 just south of the village of Ackermanville in the West central part of Washington Township. The site is picturesque.



The new Municipal building serves the public as the place for the Township Supervisors and other governmental meetings. A small kitchen facility next to the Supervisors meeting room is a convenience for some of the longer meetings and as a convenience to the administrative staff. The Township Administrative offices including zoning and code enforcement are located on the Main (upper floor) floor of the building. Township police offices are also located on the Main floor. The building is completely accessible to the handicapped. The basement of this building accommodates police car parking, storage and utility functions. Following is a picture of the new Township meeting room.

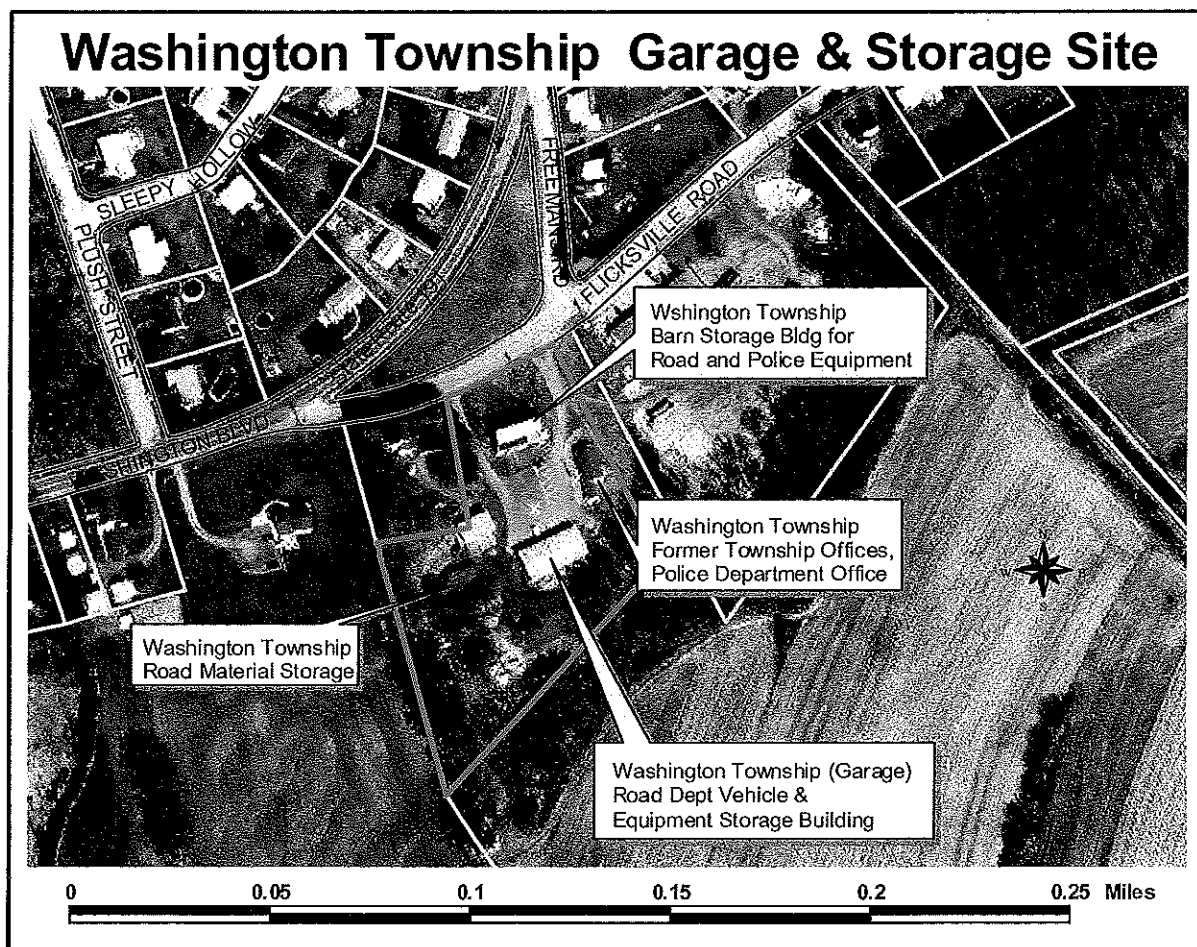


Evaluation of Township Municipal Building- This building should meet the Township needs for its intended purposes for most of the time horizon (to the year 2030) of

this Township Comprehensive Plan. As a result of its semi-open space design, this building should be able to accommodate a moderate increase in staff. However, if the Township attracts very large numbers of people to their public meetings in the short range future (2003 to 2010), additional off-street parking spaces may be required. There are construction methods that can combine temporary parking with grass areas so that the attractive setting of this building can be maintained. In the mid range future (2010 to 2020) when more floor space may be required, the five (5) acres devoted to the Municipal Building Complex provides adequate space for a building addition of another building.

Washington Township Garage and Storage Site

The Washington Township Garage and Storage Site are located on Flicksville Road in the Central part of the Township a short distance to the east of Ackermansville and south of the Borough of Bangor. There are four structures on the nearly 2.5 acre site.

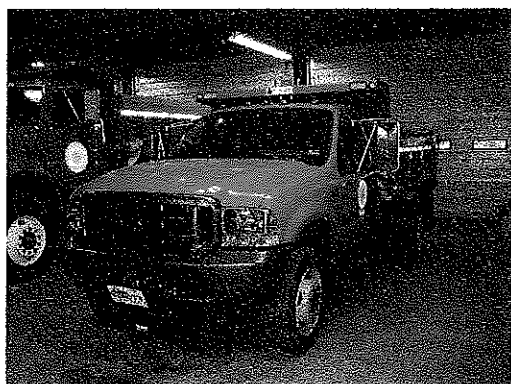


The structure on the east side of the property was the Township Municipal Building until earlier this year. It currently serves as a meeting space for the Washington Township Recreation Board and may be available for other Township groups in the future. The basement bathroom accommodates the Washington Township Road Crew since the nearby Township Garage does not contain a bathroom facility.

The Township Garage Building is located at the southeastern part of the property. It contains almost all of the Washington Township vehicles, plows and parts required by the road department to carry out their primary mission of maintaining Township roads. However this year, the mission of this department expanded to include maintenance of the new Township Park and other publicly owed parcels of land.

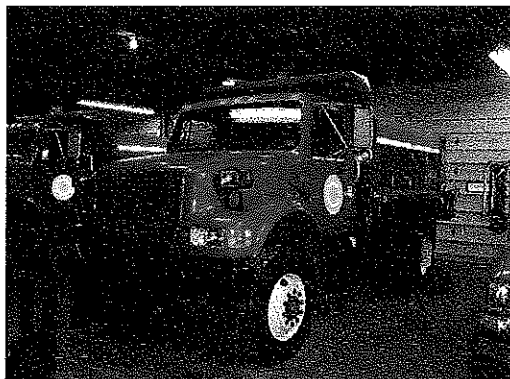
A barn and a storage shed structure are also on this parcel of land. The barn accommodates several pieces of road equipment that cannot be stored in the Township Garage building. The shed along with outdoor storage accommodates road cinders, salt and other items that are appropriate for outdoor storage.

Below are pictures of the major Washington Township Vehicles and equipment:



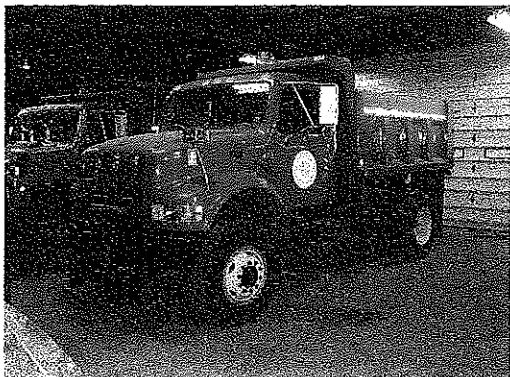
The Washington Township Road Crew has a great deal of pride in their vehicles and equipment as evidenced by the pictures to the left. The Road Crew maintains their equipment in very good running order and they keep everything nearly show-room clean. The workspace is also well organized and very clean.

At the time of our survey, the 2002 Ford F-550 Dump truck pictured to the left had only 1,278 miles on its odometer. The Township uses it for plowing and



spreading cinders in the winter time. The second truck to the left is 10 years older. It is a 1992 International Dump Truck with 2,282 hours of use and 25,554 on its odometer. It was reconditioned in 2001. This truck also serves as a snow plowing vehicle and the Township uses it for spreading cinders in the winter.

The third truck shown at the bottom of this page is a 1997 International Dump Truck. It has 739 hours of use and 8,623 miles on its odometer. It is also used for plowing and cindering.





The fourth truck is a 1985 International Dump Truck with 5,440 hours of use and 54,658 miles on its odometer. It should be replaced in a few years.



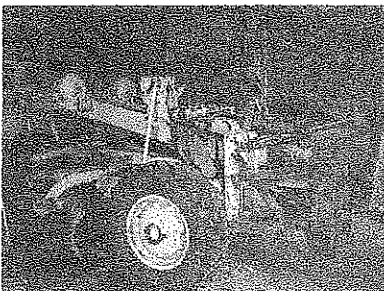
This 1998 For New Holland Tractor/Loader only has 685 hours of use and is in good condition. It is four wheel drive and has roadside cutting attachment.



The 1994 John Deere Backhoe pictured to the left has 2,144 hours of use. It is in good condition. The Township had its Front axel rebuilt last year.



Washington Township has several snow plows pictured to the left that are ready to be attached at a moment's notice. All plows appear to be in very good condition. The Township staff does a very fine job of keeping them in top condition.



This 1961 road grader also provides summer and winter service. It along with an Ingram Tandem Roller are stored in the old barn. Other pieces of Township equipment and police vehicles include a 1990 Chevy Pick-up truck with a cap, a 1988 Ford with a 1990 Tymco Street Sweeper, a 1997 Jeep Cherokee Police Vehicle, a 1997 Ford Crown Victoria Police Car, a 2000 Ford Crown Victoria Police Car.

Washington Township carries out its primary mission to maintain roads with a two person, full time crew and a part time Washington Road Supervisor. They do a most impressive

job. The two highway traffic signals (at Mr. Z's Grocery Store on SR 512 and at the Capital Plaza on SR 512) in Washington Township are maintained under a contract with a private company.

Evaluation of Township Road Equipment & Facilities- The Washington Township Road equipment is in good condition. However, because of its age, the 1985 International Dump Truck should be replaced soon. Specialized lawn, park and Municipal Complex ground maintenance will be needed now that the Road Crew responsibilities have been expanded. In fact, the Road Crew is evolving into a Public Works Crew.

The Washington Township Garage and storage site should be replaced in the short term future (2003 to 2010) as funding permits. The logical place for a new garage and storage facility would be on part of the Township Park and Municipal Complex property. Washington Township Supervisors could also consider some level of regionalization relative to public works department facilities and equipment. All of the other partner communities (Bangor, Roseto and East Bangor in the Central State Belt Multi-municipal Planning Region) need to improve their Borough Garage facilities.

Washington Township Park and Recreation

Washington Township acquired and created a "Community-wide" Park adjacent to and behind the new Washington Township Municipal Complex on State Route 191. This park currently contains 63.4 acres of land. The Township developed a baseball field, a soccer field and a multi-purpose field. The Township Supervisors recently applied for a State Department of Conservation and Natural Resources grant to create a Master Plan for the entire park and to give priority for the development of a children's play apparatus section in the park. See a picture below for a glimpse of the park as it exists in 2003.



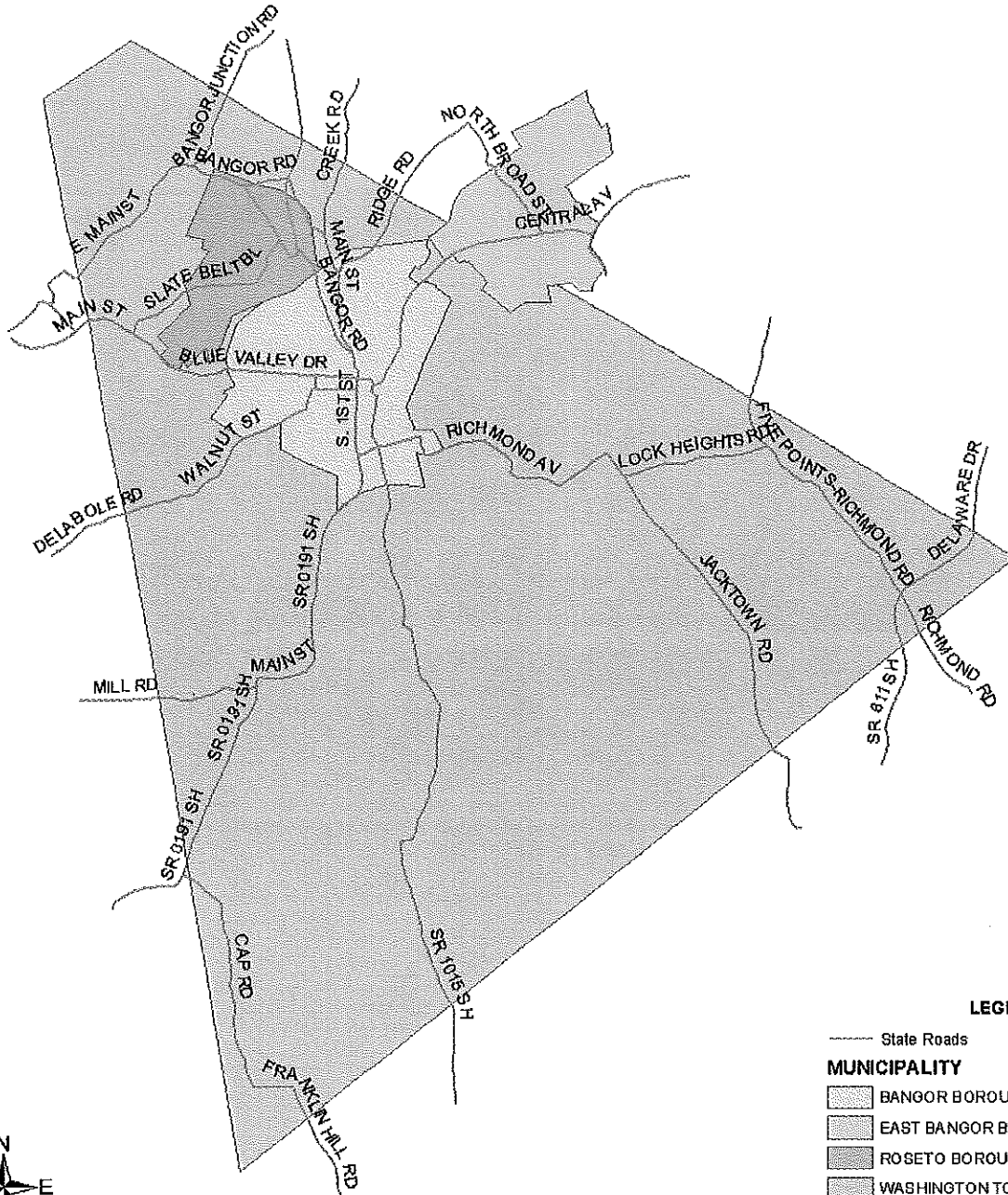
Evaluation of Washington Township Park & Facilities- Washington Township made excellent progress in the acquisition and development of the new Community-wide Park. This is the first and only Township owned park in Washington Township. Creation of a Master Park Plan is a wise next step. The process of Master Park planning should consider the character of Township Population needs for recreation and open space as well as the assets and the liabilities of this present tract of land. At the end of that detailed planning process, a set of specific plans of action should be incorporated into the Township's Comprehensive plan and capital improvement program and annual budgets.

BACKGROUND SECTION - B

Natural Inventory Maps

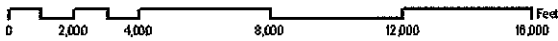
Central Slate Belt Planning Region Natural Features

Area Map



LEGEND

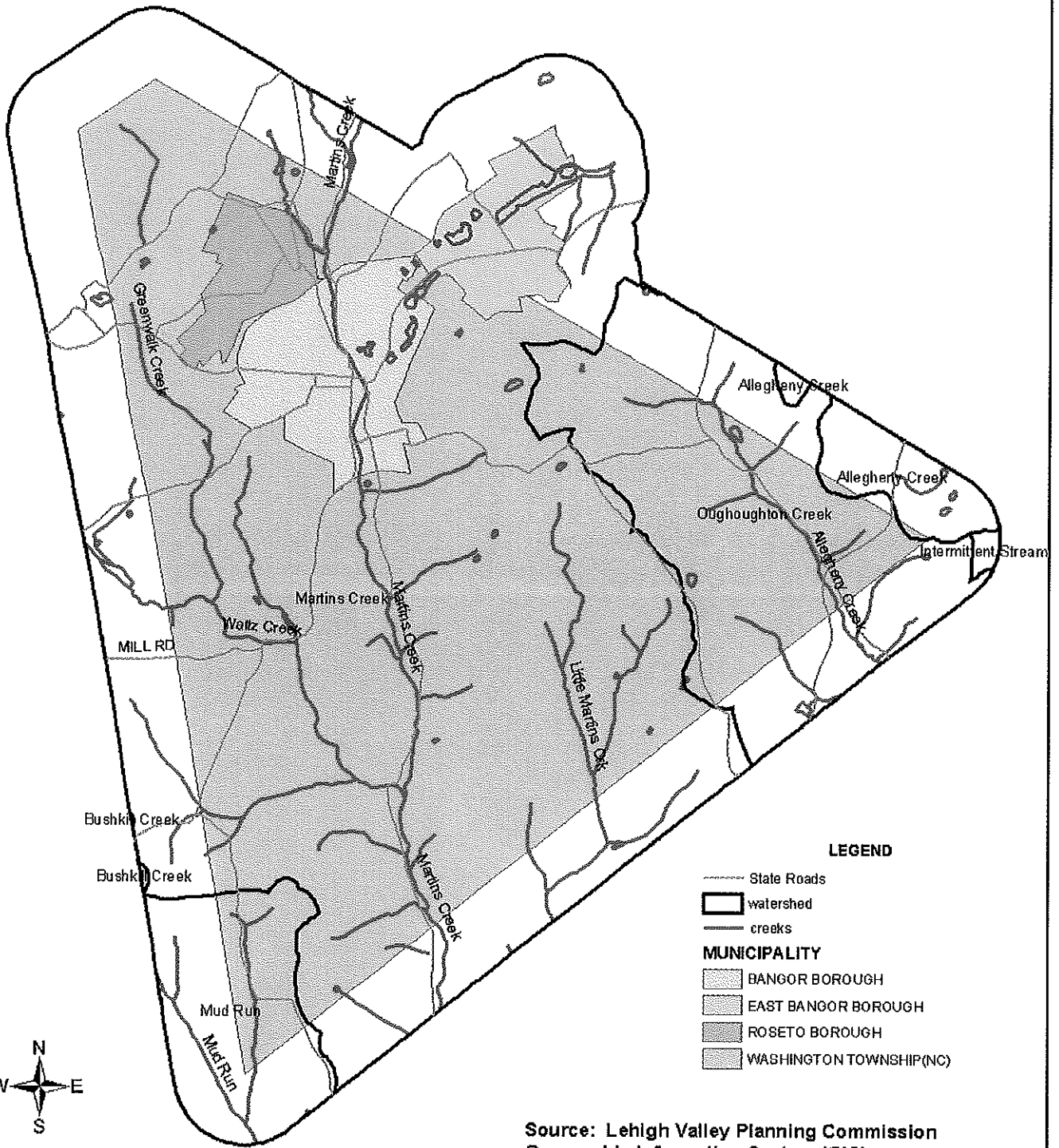
- State Roads
- MUNICIPALITY**
- BANGOR BOROUGH
- EAST BANGOR BOROUGH
- ROSETO BOROUGH
- WASHINGTON TOWNSHIP (NC)



Source: Lehigh Valley Planning Commission
 Geographic Information System (GIS)
 Cartography by Sara Pandl, AICP
 Rodite & Pandl, LLC, Community Planners
 September, 2003

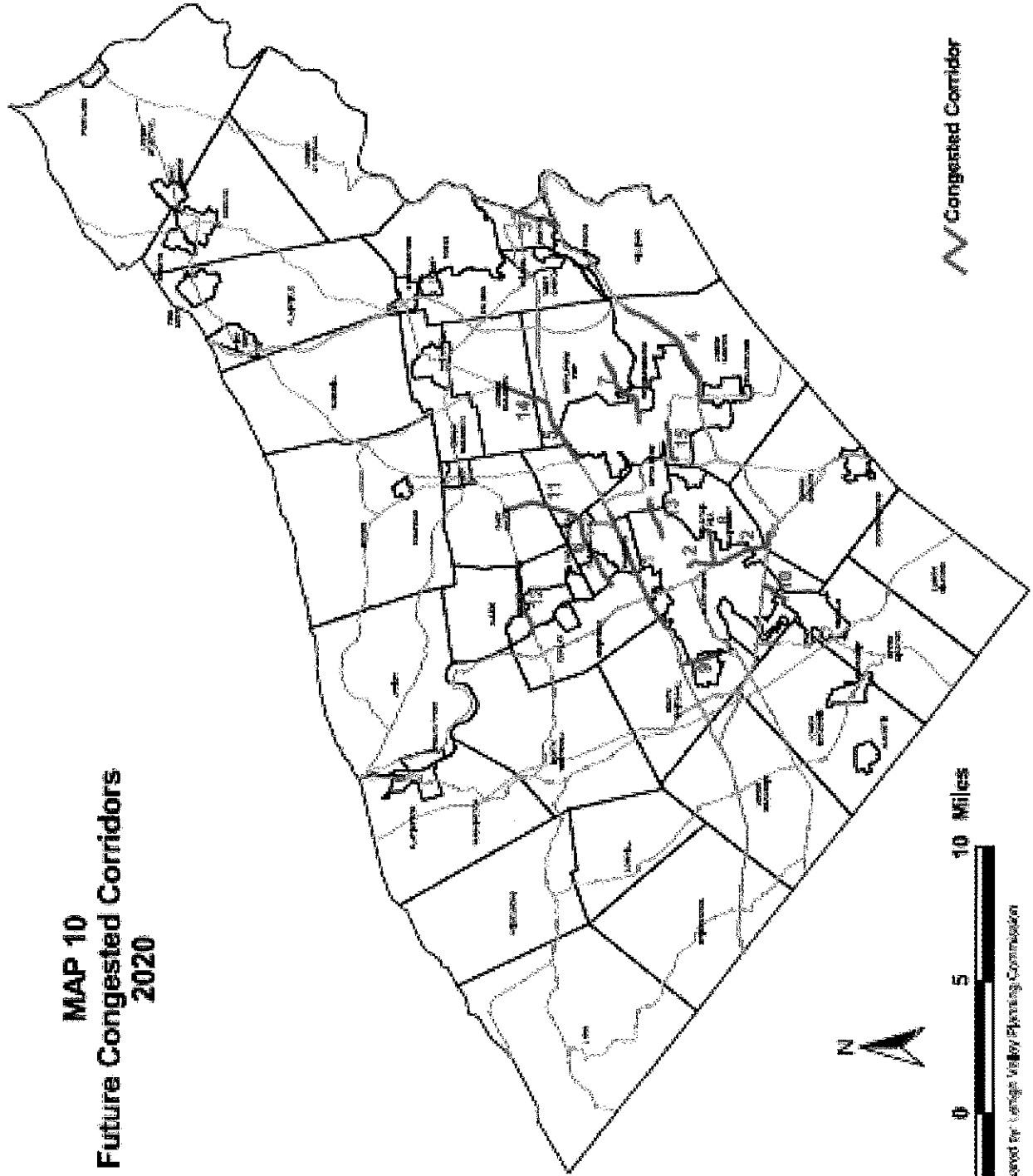
Central Slate Belt Planning Region Natural Features

Creeks and Watershed Areas



Source: Lehigh Valley Planning Commission
 Geographic Information System (GIS)
 Cartography by Sara Pandl, AICP
 Rodite & Pandl, LLC, Community Planners
 September, 2003

**MAP 10
Future Congested Corridors
2020**

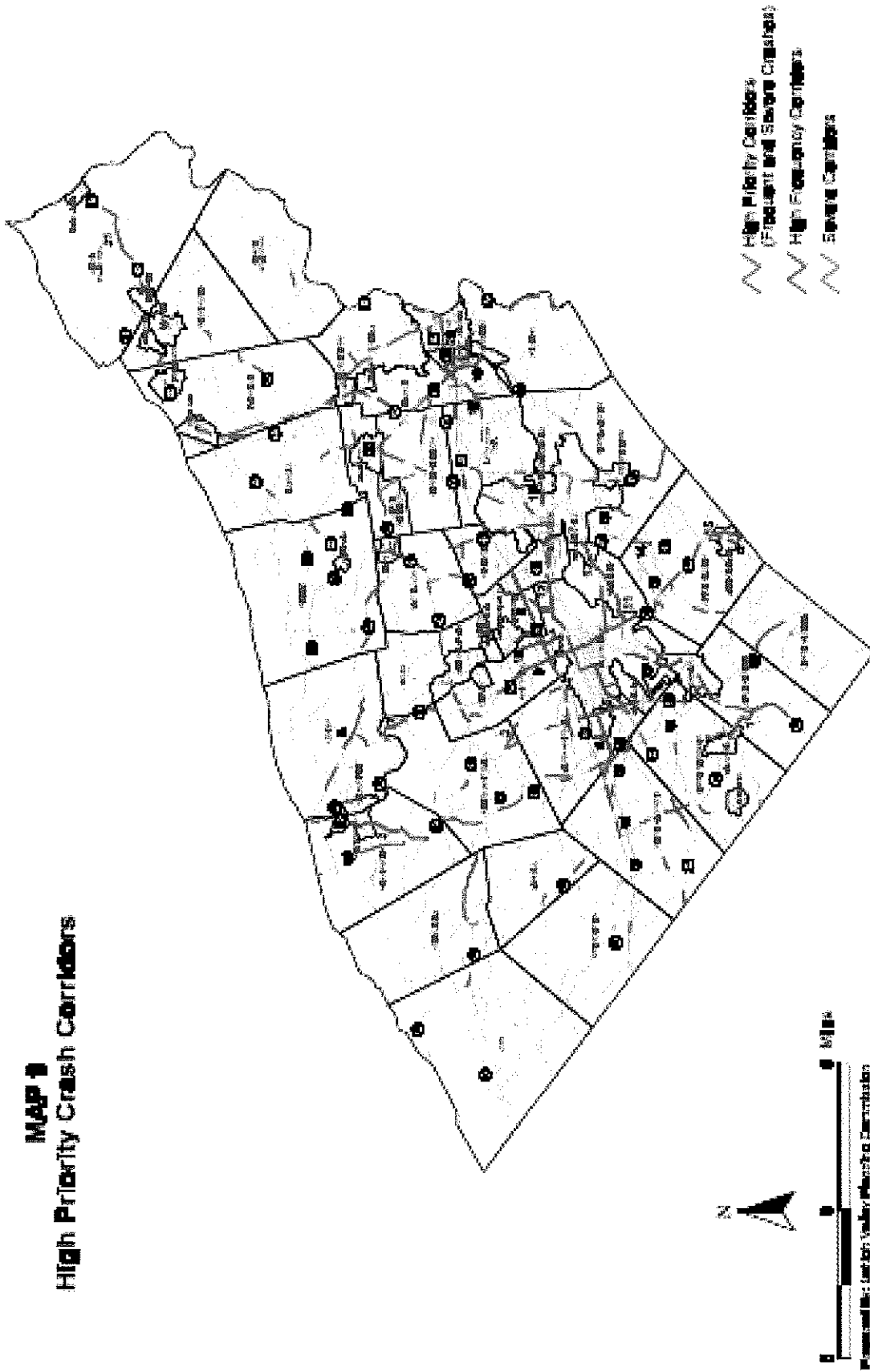


Congested Corridor

5 0 5 10 Miles

Prepared for: Lehigh Valley Planning Commission

MAP 1
High Priority Crash Corridors



BACKGROUND SECTION - D

Transportation Impact Fees

Transportation Impact Fees

Article V-A of the MPC is the exclusive authority to enact and collect offsite transportation impact fees. Statutory provisions mandate very specific and complex procedures that a municipality must follow in order to enact an impact fee ordinance. Section 508-A permits municipalities that have adopted a joint comprehensive plan under Article XI to also enact a joint transportation fee ordinance.

The municipality must establish an impact fee advisory committee, designate transportation service areas and conduct a series of studies. These studies consisting of a land use assumption report, a roadway sufficiency analysis and a transportation capital improvements plan must be approved in order to enact an impact fee ordinance. Other prerequisites include a zoning ordinance, a subdivision and land development ordinance and an adopted comprehensive plan. However, it should be noted that counties are not permitted to enact an impact fee ordinance.

Don't be misled. Impact fees will only cover a percentage of total needs and costs. Impact fees cannot be used to pay for operation and maintenance expenses, repairs, pass through trips or trips attributable to existing development. Growth and the pace of growth are among the factors to be weighed when deliberating whether to enact an impact fee ordinance. Such an ordinance represents just one more tool available to a municipality to promote orderly development. However, each municipality will have to make a cost-benefit determination to see if enacting an impact fee ordinance will likely be a net revenue producer over a given period of years. See Appendix IV on Analysis of the Impact Fee Legislation.

Appendix IV

Analysis of Transportation Impact Fees

General Intent (Section 501-A)

Article V-A of the Municipalities Planning Code, titled "Municipal Capital Improvement," authorizes all municipalities, except counties, to charge transportation impact fees on new development. As a prerequisite, the municipality must have adopted either a municipal or county comprehensive plan, subdivision and land development ordinance, and zoning ordinance. The effect of the act is to:

1. Expressly authorize the imposition of impact fees for capital improvements to the transportation system.
2. Closely define the procedures by which impact fees may be implemented.
3. Expressly exclude the use of impact fees for other purposes and to limit the extent of their use for transportation improvements.

Important Definitions (Section 502-A)

Impact fee – a charge or fee imposed by a municipality against new development to generate revenue for funding the costs of transportation capital improvements necessitated by and attributable to new development.

Offsite improvements – public capital improvements that are not onsite improvements and which serve the needs of more than one development.

Onsite improvements – all improvements constructed on the applicant's property, or the improvements constructed on the property abutting the applicant's property necessary for the ingress or egress to the applicant's property, and required to be constructed by the applicant under a municipal ordinance.

Road improvement – the construction, enlargement, expansion or improvements of public highways, roads or streets, not including bicycle lanes, bus lanes, bus ways, pedestrian ways, rail lines or toll ways.

Transportation capital improvements – offsite road improvements that have a life expectancy of three or more years, not including costs for maintenance, operation or repair.

Transportation service area – a geographically defined portion of the municipality not to exceed seven square miles of area which, according to the comprehensive plan and applicable district zoning regulations, has development potential, creating the need for transportation improvements to be funded by impact fees.

What impact fees may be used for (Section 503-A)

The law authorizes the use of impact fees for costs incurred for improvements designated in the municipality's transportation capital improvement program attributable to new development, including the acquisition of land and rights-of-way; engineering, legal and planning costs; and all other costs directly related to road improvements within the service area or areas, including debt service. Impact fees may also be used for a proportionate share of the cost of professional consultants hired to prepare a roadway sufficiency analysis. The proportionate share must be determined based on a formula specified in the act.

What impact fees may NOT be used for (Section 503-A)

Municipalities are expressly prohibited from using impact fees for:

1. Construction, acquisition or expansion of municipal facilities that have not been identified in the township's transportation capital improvement plan.
2. Repair, operation or maintenance of existing or new capital improvements
3. Upgrade, update, expansion or replacement of existing capital improvements to serve existing developments to meet stricter safety, efficiency, and environmental or regulatory standards that are not attributable to new development.
4. Preparation and development of land use assumptions and the capital improvements plan.
5. Road improvements due to pass-through traffic or to correct existing deficiencies.

Prohibitions (Section 503-A)

Impact fee ordinances must be established only as authorized in the act. The law expressly prohibits a municipality from requiring as a condition for approval of a land development or subdivision application the following, except as specifically authorized under the act:

1. Offsite improvements or capital expenditures of any nature whatsoever
2. Contributions in lieu of improvements
3. Exaction fees
4. Connection, tapping or similar fees (except as specifically authorized under Act 203 and Act 209)

The act does not specifically address the ability of municipalities and developers to negotiate and enter into voluntary agreements for offsite improvements other than those covered by impact fees.

Onsite improvements (Section 503-A)

The act does not affect a municipality's power to require onsite improvements. However, the municipality may not withhold approval of a development for the reason that an "approved capital improvement program" has not been completed.

Joint Municipal Impact Fees (Section 503-A)

Act 68 of 2000 granted the authority for 2 or more municipalities, other than counties, to adopt transportation impact fees as originally provided for by Article V-A. Municipalities participating and having adopted a joint municipal (multimunicipal) comprehensive plan consistent with Article XI can implement the requirements of Article V-A cooperatively through an intergovernmental cooperation agreement.

Procedures to adopt impact fee ordinance (Section 504-A)

Appointment of advisory committee

The township must first appoint, by resolution, an impact fee advisory committee consisting of 7 to 15 members. The township also has the option of appointing its planning commission to serve as the impact fee advisory committee. At least 40 percent of the members of the advisory committee must be representatives of the building and real estate industries. If the township appoints its planning commission as the advisory committee, it must appoint additional ad hoc voting members so that at least 40 percent of the committee represents the building and real estate industries whenever the planning commission is operating as the advisory committee. The composition of the advisory committee can be challenged for a period of 90 days from the first public meeting of the advisory committee. In the resolution, the township must also describe the geographical area or areas for which the advisory committee will develop the land use assumptions and conduct the road sufficiency analysis studies.

Development of land use assumptions

The advisory committee must first develop land use assumptions to predict future growth and development within the areas designated by the township in its resolution. The land use assumptions report must include a description of existing land uses and the roads within the designated area(s). The report must also reflect projected changes in land use, densities of residential and non-residential development, and population growth rates for the next 5 years. The report may be based on and refer to prior plans and studies prepared for the township. A copy of the report must be forwarded to the county planning agency, all contiguous municipalities and the local school district for comment at least 30 days before the committee holds a public hearing.

With passage of Act 68 of 2000, municipalities may jointly hire a professional to prepare a multiple-municipality roadway sufficiency analysis. By joining together, municipalities can take advantage of economies of scale, plus one roadway sufficiency analysis serves all the cooperating municipalities and the reports will be consistent. This offers advantages for those electing to participate in this approach.

The committee must conduct a public hearing for the consideration of the land use assumptions, and then present a written report to the township. The township must approve, disapprove or modify the land use assumptions by resolution.

Preparation of roadway sufficiency analysis

In the next step, the advisory committee must, in consultation with a traffic or transportation engineer or planner commissioned by the township, prepare or have prepared a roadway sufficiency analysis to establish the existing levels of service on roads and the preferred levels of service within the designated area(s). These levels of service must be in accordance with the categories defined by the Transportation Research Board of the National Academy of Sciences or the Institute of Transportation Engineers. The analysis must be done

for any road within the area for which there is a projected need for improvements due to future development. If a road is not included in the analysis, it will not be eligible for impact fees.

The road sufficiency analysis must also specify:

- The required road improvements needed to bring the existing level of service up to the preferred level of service.
- Projected traffic volumes for the next five years.
- Anticipated traffic due to persons traveling through the area, separate from the trips generated by residents, and the forecasted road deficiencies created by these trips.

The township must take action by resolution to approve, disapprove or modify the roadway sufficiency analysis provided by the advisory committee.

The Capital Improvements Plan.

Using the information from both the land use assumptions and the roadway sufficiency analysis, the advisory committee must then determine the need for road improvements to correct any existing deficiencies and to accommodate future development. The committee must first identify the transportation improvements that should be included in the plan and establish the boundaries of one or more transportation service areas. These areas may not exceed 7 square miles, or approximately 2.6 miles by 2.6 miles. The plan must also include an estimate of the cost of the road improvements, using standard traffic engineering standards. A maximum contingency fee of 10 percent may be added to the estimate. The plan must include the following:

- A description of existing roads within the transportation service area(s) and anticipated road improvements not attributable to new development.
- Road improvements due to pass-through traffic.
- Road improvements due to future development.
- The estimated cost of the road improvements, with separate calculations for costs to correct existing deficiencies; costs attributable to pass-through trips; and costs attributable to future development.
- A projected timetable and budget for the road improvements identified in the plan.
- Proposed sources of funding for each capital improvement, including federal, state and municipal funds, impact fees and any other source.

Public hearing

Once the capital improvements plan has been completed, the advisory committee must hold a public hearing. The plan must also be available for public inspection at least 10 working days prior to the public hearing date.

Presentation and adoption of plan

The plan must be presented to the municipality at a public meeting. The board of

supervisors may make changes to the plan prior to its adoption.

State and federal highways

Roads that qualify as a state highway or rural state highway may only be funded by impact fees to a maximum of 50 percent of the total cost of the improvements.

Update of capital improvements plan and impact fees

The township may periodically request the advisory committee to review and update the capital improvements plan and impact fee charges.

Development of impact fee ordinance (Section 505-A)

Once the capital improvements plan has been completed and adopted, the governing body must then prepare an impact fee ordinance, which must set the following procedures.

Calculation of fee

The impact fee is calculated based on the total cost of the identified road improvements within a given transportation service area attributable to new development within that service area. This figure is then divided by the number of anticipated peak hour trips generated by the new development. This calculation for peak hour traffic must be estimated in accordance with the Trip Generation Manual published by the Institute of Transportation Engineers. The resulting figure will be the per trip cost of transportation improvements within the service area.

When fee is determined and collected.

The impact fee must be determined as of the date of preliminary land development or subdivision approval. The per trip cost established for the service area is multiplied by the number of trips to be generated by the new development or subdivision using generally accepted traffic engineering standards. The builder or developer must pay the calculated impact fee at the time the building permit is issued for the development or subdivision. A guarantee of financial security in lieu of the payment of the full fee is not allowed, unless the applicant has agreed to construct the road improvement himself. Allowable exemptions (Section 503-A).

The township may include in its impact fee ordinance exemptions for de minimis applications, or small land development with a negligible impact, affordable housing as defined in the act or growth that the township determines to have an overriding public interest.

Additional traffic studies

The municipality may authorize a special transportation study to determine traffic generation for a new nonresidential development. The developer may also voluntarily prepare or commission and submit a traffic study at his own expense. The study must be submitted prior to the imposition of the impact fee and must be taken into consideration by the municipality in either reducing or increasing

the fee.

Adoption of impact fee ordinance

The township must adopt an impact fee ordinance that specifies the boundaries and fee schedule for each transportation service area. The ordinance must be available for public inspection at least 10 working days prior to the public meeting at which the ordinance is to be adopted.

Retroactivity

The impact fee ordinance may be made retroactive for a period of up to 18 months after the adoption of the resolution creating the impact fee advisory committee. The impact fee assessed during the 18-month period may not exceed \$1,000 per anticipated peak hour trip or the subsequently adopted impact fee, whichever is less.

Accounting of impact fees.

Fees collected by the township must be deposited in an interest bearing account designated solely for impact fees and clearly identifying the transportation service area from which the fees were received. Fees collected from a transportation service area can only be used within that transportation service area. The township must provide an annual accounting for this account.

Credits.

The builder or developer is entitled to receive credit against the impact fee for the following:

- The fair market value of any land dedicated to the municipality for future right-of-way, realignment or widening of existing roadways, determined as of the date the land development or subdivision application was submitted.
- The value of any road improvement constructed at the applicant's expense, at the same rate identified in the capital improvements plans.

Refund of impact fees.

Impact fees must be refunded to the applicant, along with any accrued interest, under the following circumstances:

- The municipality has terminated or completed the capital improvements program for the transportation service area and funds are left over.
- The municipality has failed to begin construction of any road improvement within three years of the scheduled construction date stated in the capital improvements plan.
- After completion of a road improvement, the actual expenditures were less than 95 percent of the costs for which the fee was paid.
- Construction on the new development has not started, and the building permits have expired or been altered so as to decrease the impact fee due. To refund the fees, the municipality must provide written notice by certified mail to the builder or developer who paid the fee. If the funds are

unclaimed after a one-year period, the municipality may use the fees for any other purpose.

Appeals (Section 506-A)

An individual required to pay an impact fee may appeal any matter relating to the fee with the court of common pleas. The court may appoint a master to hear testimony and make a report and recommendations. The parties would be responsible for their separate costs.

Tap-in fees (Section 507-A)

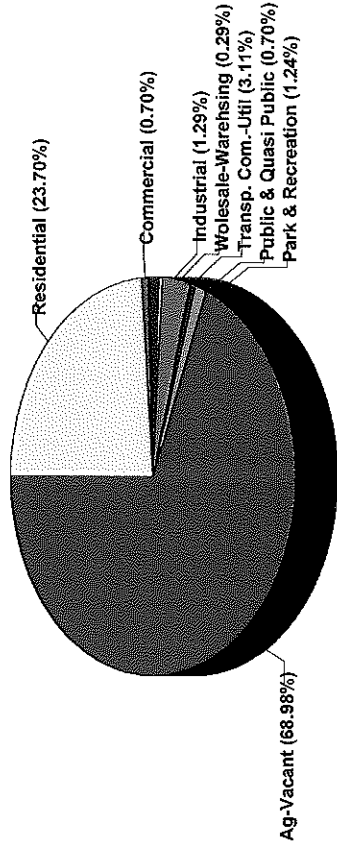
The law requires municipalities that assess tap-in or similar sewer and water fees to comply with the provisions of Act 203 of 1990, which amends the Municipalities Authorities Act.

Note: Fees for recreational facilities are addressed in Section 503(11) of the Municipalities Planning Code, Act 247 of 1968, as reenacted and amended. You may also wish to review this action in conjunction with the Pennsylvania Transportation Partnership Act, P.S. 53 Sect. 1621 et seq.

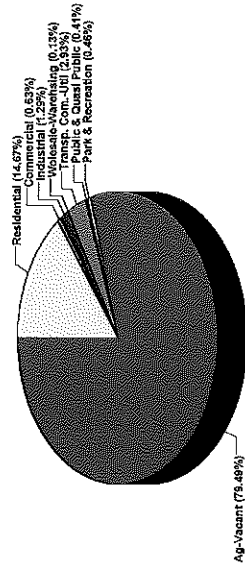
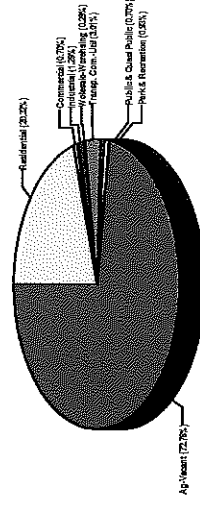
BACKGROUND SECTION - E

Existing Land Use 1972, 1992, 2002

LAND USE TRENDS - WASHINGTON TOWNSHIP NORTHAMPTON COUNTY, PA 1972 TO 2002



ABOVE CAPTION: 2002 Existing Land Use, Washington Township, Northampton County, PA



1972 Existing Land Use, Washington Township,
Northampton County, PA

1992 Existing Land Use, Washington Township,
Northampton County, PA

LAND USE TRENDS – WASHINGTON TOWNSHIP NORTHAMPTON COUNTY, PA 1972 TO 2002

Land Use Categories	Washington Township		Washington Township		Washington Township		TREND Percent Change 1972 to 2002
	<u>1972</u> Existing Land Use Acres	Percent of total for 1972	<u>1992</u> Existing Land Use Acres	Percent of total for 1992	<u>2002</u> Existing Land Use Acres	Percent of total for 2002	
Residential	1,677.9	14.7%	2,324.9	20.3%	2,710.7	23.7%	61.6%
Commercial	71.8	0.6%	79.8	0.7%	79.8	0.7%	11.1%
Industrial	147.6	1.3%	147.5	1.3%	147.5	1.3%	-0.1%
Wholesale & Warehousing	14.3	0.1%	32.8	0.3%	32.8	0.3%	129.4%
Transport., Commun., Utility	335.2	2.9%	344.7	3.0%	355.8	3.1%	6.1%
Public & Quasi-Public	47.0	0.4%	80.3	0.7%	80.3	0.7%	70.9%
Park & Recreation	52.4	0.5%	106.2	0.9%	142.0	1.2%	171.0%
Agricultural & Vacant	9,092.8	79.5%	8,322.8	72.8%	7,890.1	69.0%	-13.2%
Total	11,439.0	100.0%	11,439	100.0%	11,439	100.0%	0.0%

Source: Lehigh Valley Planning Commission basic Census data & Rodite & Pandl, LLC Community Planners for Table construction