

Central Carbon County Regional Comprehensive Plan



East Penn Township, Franklin Township, Lehighon Borough, Mahoning Township, and Weissport Borough; Carbon County, Pennsylvania

Consultant:



Adopted October/November 2011

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Executive Summary

The Boroughs of Lehighton and Weissport and the Townships of East Penn, Franklin, and Mahoning have joined together as the Central Carbon County Region to develop this multi-municipal comprehensive plan that updates their previous individual comprehensive plans and creates a framework for enhancing and protecting the quality of life for these communities.

A comprehensive plan is a guide for the future development of a community. It examines the physical, social, and economic characteristics of an area to define what exists today and forms a foundation for the future. During this process, it answers the following basic questions through the various components of the plan:

- *Where are we?* (Inventory and analysis of background data and information)
- *Where do we want to go?* (Community goals and objectives)
- *How can we get there?* (Planning elements and implementation strategies)

The planning process relies on the public's participation for direction and feedback. Public participation for the Central Carbon County Regional Comprehensive Plan involved four components: 1) Central Carbon County Regional Comprehensive Planning Committee (CCRCPC) meetings, 2) public meetings and hearings, 3) key person interviews, and 4) a citizen survey.

To focus attention on the major planning issues facing the region, the Central Carbon County Regional Comprehensive Plan is structured based on five (5) topics that consistently surfaced during the public participation phase of this project:

- Economic development and job creation
- Transportation improvements
- Preserving community character
- Protecting critical natural features and historic resources
- Improving community facilities and services

Goals and objectives for the region are organized around these five issues and establish the foundation for land use controls and provide direction for municipal policies and activities. For each of the regional issues, implementation strategies and action items have been identified to help address the major issues and priorities in the region.

Community Goal

Manage development so as to protect and improve the community character; preserve the natural environment and farmland; improve mobility; provide adequate municipal services and public facilities efficiently and cost effectively; and improve the economic and social well-being of the community.

Guiding Principles and Action Items

1. Ensure the Economic Vitality of the Region

To improve the region's economic vitality, the area needs businesses and industry that provide jobs and tax revenue to support public services and enhance the quality of life. Good land use

planning can direct retail, service, and industrial development to appropriate areas and where it builds economic capacity and strengths existing commercial and downtown areas.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Support revitalization of Lehighon Borough's downtown as the cultural, entertainment, and retail hub for residents of the region.	Prepare a Downtown Revitalization Plan	Short-Term	DCED
Encourage the development of the Packerton Yards and Semanoff sites as mixed-use developments which take advantage of the recreational and economic development potential of the Lehigh River waterfront.	Creation of a "town center" district in the zoning ordinances of Lehighon Borough and Mahoning Township with a mix of uses, including residential uses as both principal uses and as uses above commercial and office uses.	Long-Term	DCNR
	A greater mix of general land use categories that allow the "free-market system" to determine the most appropriate uses based on the size and location of the sites and economic conditions of the region.		
	Updated and consistent floodplain regulations in Lehighon Borough and Mahoning Township.		
	Establishment of area and size requirements for commercial uses that are more urban than suburban or highway commercial.		
	Elimination of the OS Open Space Conservation district in Lehighon Borough and incorporation of open space and recreation requirements into the master plan for the entire town center district.		

2. *Improve Mobility*

Improving mobility means providing more transportation choices, designing functional and efficient transportation facilities that complement community character as well as accommodating traffic, and encouraging housing to be situated near work and community facilities. Central Carbon County should continue to encourage and support road improvements that relieve congestion and correct deficiencies, but should also continue to create a network of trails and sidewalks that can be used by pedestrians and cyclists. The region can make alternate transportation methods feasible and desirable by promoting paths, encouraging a mix of land uses, and by making streets pedestrian and bicycle friendly.

Concurrently with the preparation of this Plan, the region prepared an expanded *Transportation Plan*, a summary of which is included in this Plan.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Encourage and support safety, operational, and capacity improvements along the PA 443 corridor.	Adopt access management standards for new and existing development along the PA 443 corridor.	Short-Term	Private Developers PennDOT
Encourage and support the replacement of the McCall Bridge and improvements to the US Route 209 and PA Route 443 intersection.	Continue to lobby NEPA, PennDOT, and area legislators for funds to replace the McCall Bridge and improve the intersection.	Long-Term	PennDOT

3. Protect and Improve the Character and Sense of Community in the Region

Vibrant communities are attractive, walkable, affordable, and economically healthy; and meet the needs and preferences of residents. The region has a distinct history and character that defines the community’s sense of place. By identifying what makes Central Carbon County unique, the region can develop policies that foster attractiveness and economic vitality. Thriving town centers are particularly important because they serve as the foundation and focal point for an area.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Adopt appropriate zoning and subdivision regulations to encourage new development that create a network of open space and a sense of community.	Adopt Conservation Zoning and Conservation Subdivision Design based on the <i>Growing Greener: Conservation by Design</i> concept.	Short-Term	DCNR Local Municipalities
Encourage the revitalization efforts of the Boroughs of Lehighton and Weissport to ensure their place as the urban hub of the region.	Development of transfer of development rights (TDR) programs which allow and encourage the transfer of development rights from the more rural and natural resource sensitive areas of the region to the Boroughs of Lehighton and Weissport.	Long-Term	DCNR Local Municipalities

4. Conserve the Region’s Natural Features and Cultural Resources

Successful communities identify the areas that are most important to protect, such as streams, forests, farmland, scenic views, or historic structures, and guide growth into areas better suited for development. Natural landscapes and historic structures help define an area and, therefore, conservation of these resources contributes to the region’s character and economic health.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Adopt land use and zoning regulations which are consistent with state and federal regulations for the protection of natural resources.	Adopt Conservation Zoning and Conservation Subdivision Design based on the <i>Growing Greener: Conservation by Design</i> concept.	Short-Term	DCNR Local Municipalities
Identify potential historic resources and investigate the potential eligibility of historic districts in the region.	Prepare a historic site survey to evaluate potential historic resources to determine their historic or architectural importance and potential eligibility as individual or district candidates for the National Register.	Long-Term	PHMC

5. Build and Maintain a Livable Community with Good Services and Facilities

Adequate community services and facilities such as police and fire protection, schools, libraries, and amenities like parks are important community assets that should be provided and maintained to improve the quality of life in the region. Concurrently with the preparation of this Plan, the region prepared a *Park, Recreation, Greenway, and Open Space Plan*, a summary of which is included in this Plan.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Create a safe, convenient, and attractive pedestrian walkway/trail system that interconnects residential, stream corridors, parks and open space, and downtown business areas.	Complete construction of the D&L Trail through the region.	Short-Term	Lehigh Canal & Recreation Commission, Local Municipalities
Provide public water service with sufficient capacity to meet future needs of the region, sufficient treatment to supply safe drinking water to the region's residents, and reasonable rates to encourage economic development.	Explore options to address the fact that the Lehigh Water Authority is currently operating at or near its maximum capacity, needs to replace a substantial amount of its aging water lines, and has insufficient capital improvement funds.	Long-Term	User Fees; PennVEST, DCED, USDA, CDBG Programs; Sale of System; Forest Legacy Easement

The Region's Vision for the Future

What will the Central Carbon County Region look like if we are successful in implementing the Comprehensive Plan?

- New development will be accommodated to allow for expected growth.
- New development will respect the natural environment.
- The region will be comprised of a variety of land uses – agricultural, residential, commercial, industrial, and recreational – that balance and inter-relate economic development with preservation of open spaces and greenways.
- Neighborhoods and activity centers will be interconnected with streets and paths. Residents will be able to get to community centers, parks, and schools by a network of pathways. The trail system will be expanded.
- Special places, such as important farmland, historic sites, and scenic landscapes, will be preserved for future generations.
- The Lehigh River corridor will continue to be the focal point for recreational activities and tourism in the region and will contribute to the economic growth of Lehigh and the area.
- Unblighted and vibrant neighborhoods will exist that involve existing residents and which attract and retain new residents.
- The Borough of Lehigh will become a viable urban center and the economic foundation of the region.
- The region will contain quality employment, training opportunities, and affordable housing to promote a diverse and sustainable workforce.

- New non-residential development will be limited to designated areas along the region's major highways and the Packerton Yards/Semanoff sites, and will contain a mix of uses. Businesses in designated commercial and industrial areas will contribute to making the region a balanced community by providing jobs and contributing to economic vitality.
- The region's highways will function in a safe and efficient manner.
- The region will contain a well-maintained transportation network that provides multi-modal access to urban and rural areas within the region and beyond.
- Residents of all ages will have access to safe and convenient community services, such as parks, recreational programs, libraries, fire and police protection.
- Partnerships will exist between education and business, and other public/private entities, to promote "brain gain" instead of "brain drain".
- The region will contain sustainable, clean, environmentally friendly energy sources and industries.
- Intergovernmental cooperation that promotes sound land use, safe and efficient infrastructure, and consolidated services will be a common practice.
- The region will offer an enhanced quality of life for all of its citizens.

Chapter 1 – Introduction

A comprehensive plan is a guide for the future development of a community. It examines the physical, social, and economic characteristics of an area to define what exists today and forms a foundation for the future. During this process, it answers the following basic questions through the various components of the plan:

- *Where are we?* (Inventory and analysis of background data and information)
- *Where do we want to go?* (Community goals and objectives)
- *How can we get there?* (Planning elements and implementation strategies)

The Boroughs of Lehighton and Weissport and the Townships of East Penn, Franklin, and Mahoning have joined together as the Central Carbon County Region to develop this multi-municipal comprehensive plan to update their previous individual comprehensive plans and creates a framework for enhancing and protecting the quality of life for these communities.

Except for Lehighton Borough, whose current comprehensive plan was adopted in 1994, all of the other comprehensive plans in the region were prepared in the 1970s. Notwithstanding the fact the Pennsylvania Municipalities Planning Code (MPC) requires that comprehensive plans be reviewed at least every ten (10) years, much has changed in the last 30 to 40 years in terms of regional population characteristics, economic conditions, natural resource protection, and planning guidelines and regulations.

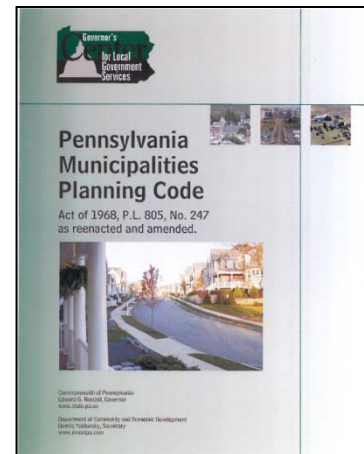
A regional or multi-municipal comprehensive plan is a strategy developed and adopted by two or more municipalities as authorized by the MPC. Planning on a regional level, rather than on an individual municipal level, is a cost effective and logical way of analyzing the various natural resources and man-made features that comprise an area. Except for the arbitrarily established municipal boundaries that define the geographical limits of a community, other features such as streams, watersheds, roads, housing and labor markets, shopping patterns, and school district boundaries exist on a larger regional scale.

The MPC provides legal protection for municipalities that prepare and adopt regional comprehensive plans. Rather than each municipality having to individually provide for all land uses and their fair sharing of all housing types, regional planning allows these critical legal requirements to be shared between members of the region. Regional zoning is not required or necessary to take advantage of this provision. With the adoption of a regional comprehensive plan, individual municipal zoning ordinances need only be “generally consistent” with the plan.

Regional comprehensive plans are also used by state agencies to give priority consideration to applications for financial and technical assistance for projects which are consistent with the plan.

Central Carbon County Planning Process

The comprehensive plan for Central Carbon County began in December 2005 with the formation of the Central Carbon County Regional Comprehensive Planning Committee with representatives from East Penn, Franklin, and Mahoning Townships and the Borough of Weissport. After a request for qualifications (RFQ), request for proposals (RFP) and interview



process, Stell Environmental Enterprises, Inc. was retained in 2008 to assist the region in seeking and obtaining grant funds for the plan and ultimately preparing the plan. Lehighton Borough subsequently joined the region in December 2009.

The MPC outlines the rules and regulations for planning, zoning, subdivision and land development in Pennsylvania. Other state and federal laws regulate sewage facilities, traffic planning, taxation, stormwater, and environmental protection. All of these affect how growth and development is managed and have been taken into account in preparing this comprehensive plan and establishing a vision for the region.

Comprehensive Plan Components

Article III of the MPC contains both mandatory requirements and optional provisions regarding the content of comprehensive plans. The actual contents can be modified so that the plan is tailored to the specific planning needs of the community. Since most of the planning in the region is between 30 and 40 years old, it was necessary to conduct a detailed inventory of existing conditions to provide an adequate foundation for the establishment of goals and objectives and the development of future strategies. The region also elected to prepare optional studies on economic development, the form and function of government, water resources, and energy conservation.

To focus attention on the major planning issues facing the region, the Central Carbon County Regional Comprehensive Plan is structured around five (5) topics that consistently surfaced during the public participation phase of this project:

- Economic Development
- Transportation
- Community Character
- Natural Features and Cultural Resources
- Community Facilities and Services

The various planning components required of the MPC and the chapters in this Plan are organized around these regional focus areas, rather than the traditional format of comprehensive plans. The planning elements for each of these areas are presented in the beginning the Plan, with the detailed supporting information provided in the appendices.

Concurrently with the preparation of this Plan, the region prepared an expanded *Transportation Plan* and a *Park, Recreation, Greenway, and Open Space Plan* as separate documents. A summary of these plan's recommendations are included in this regional comprehensive plan.

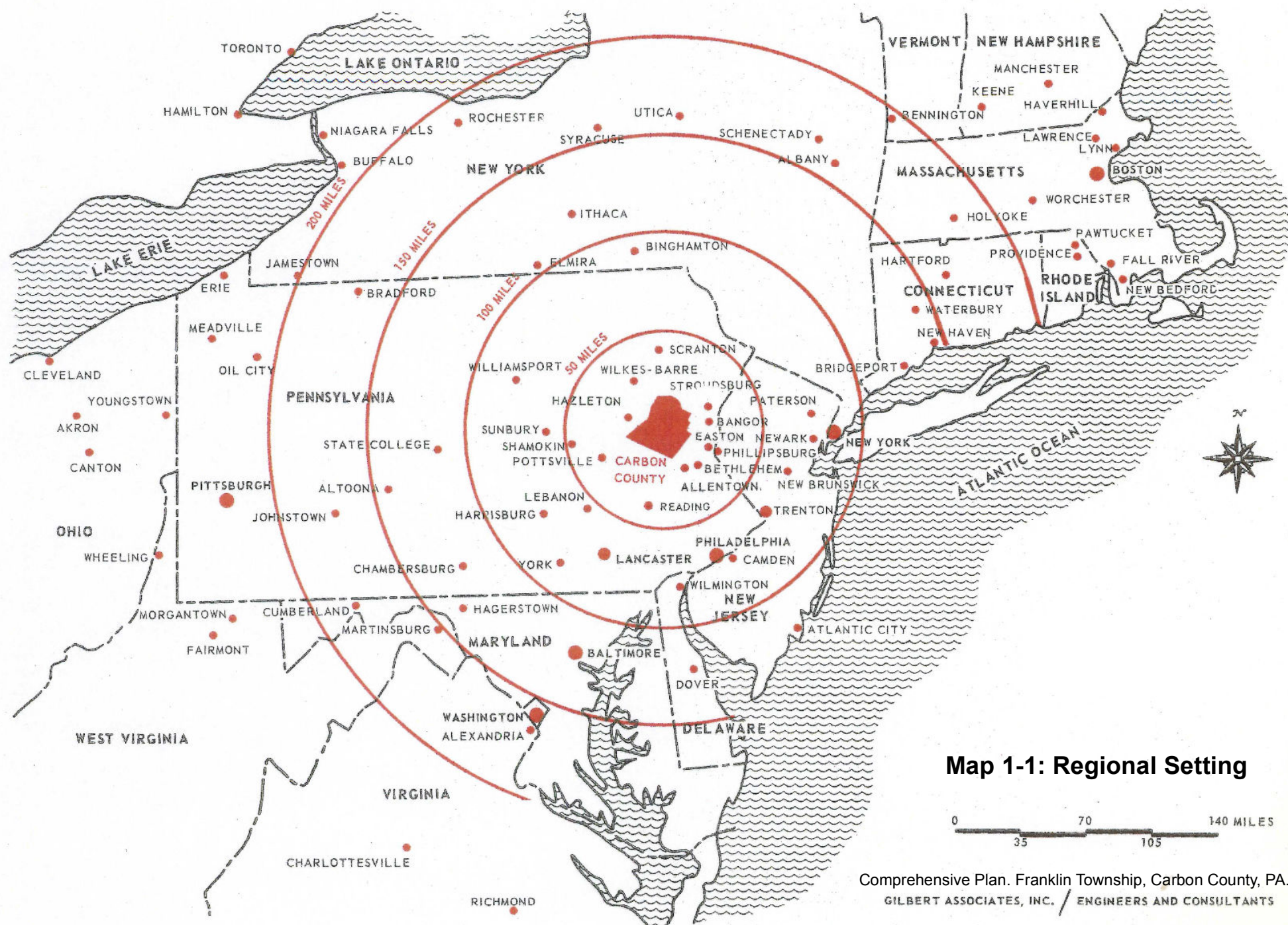
Regional Setting

“Central Carbon County” is actually located in the southwest corner of Carbon County, with Lehigh County to the south and Schuylkill County to the west. The region contains five (5) of the County's 23 municipalities, comprises 16.3% of the land area, and is home to 27.9% of the County's population.¹ The Blue Mountain/ Kittatinny Ridge provides a scenic yet formidable barrier between the region and the Lehigh Valley, which is accessible through the Lehigh Tunnel of the Pennsylvania Turnpike.

¹ Based on U.S. Census Bureau data and July 2009 population estimates.

The Northeast Extension of the Pennsylvania Turnpike (I-476) traverses the region, with the Mahoning Valley Exit located in Franklin Township. This provides easy access to nearby urban centers (e.g. – 18 miles south to Allentown/Lehigh Valley, 31 miles north to Wilkes-Barre/Scranton) and the major transportation systems in the state and northeastern United States (e.g. – I-80 and I-78). Philadelphia is approximately 80 miles southeast of the region and New York City 100 miles east (Map 1-1).

Carbon County is included in the state-designated Pocono Forests and Waters Conservation Landscape Initiative. The region also contains the Delaware & Lehigh National Heritage Corridor and the Appalachian National Scenic Trail.



Map 1-1: Regional Setting

Chapter 2 – Public Participation Summary

A critical element of any planning project are efforts to encourage community involvement and public participation in the development of the plan. They provide a means to solicit citizen and community input to the planning process and include hands-on participation related to strategic planning for the long range future of the region. Public participation is also necessary to gain support for adoption and implementation of the plan.

Public participation for the Central Carbon County Regional Comprehensive Plan involved four components: 1) Central Carbon County Regional Comprehensive Planning Committee (CCRCPC), 2) public meetings and hearings, 3) key person interviews, and 4) citizen survey.

Central Carbon County Regional Comprehensive Planning Committee (CCRCPC)

Originally organized in 2005, the Central Carbon County Regional Comprehensive Planning Committee (CCRCPC) began meeting to oversee the preparation of the Comprehensive Plan at a kick-off meeting October 22, 2009. The Planning Committee, through facilitated meetings, identified the following ten (10) key issues that they believed needed to be addressed in the region:

- traffic congestion
- protection of natural features
- multi-modal transportation
- economic development
- traditional neighborhoods, cluster, and village design for new developments
- age and condition of existing housing
- opportunities for mixed-use boroughs
- aging population
- municipal expenditures
- energy conservation

With additional input from the key person interviews, citizen survey, and initial public comments, these were then combined into five (5) major categories and focus areas to serve as the framework for the Comprehensive Plan. The Planning Committee subsequently met on a bi-monthly basis to follow project status and to provide feedback on the various components of the Plan.

Public Meetings and Hearings

A total of three (3) public meetings and one (1) public hearing were held to present the Comprehensive Plan to the general public and municipal officials and to solicit feedback from the attendees. Two (2) of the public meetings were held early in the planning process (January 28, 2010 and February 3, 2010) to help identify major regional issues or problems and to assist with the development of community goals and objectives. A total of approximately 26 residents attended these public meetings, during which the following issues/concerns were expressed:

- property rights of large landowners
- agricultural zoning
- regional zoning

- road/bridge improvements
- job creation
- plan implementation
- regional comprehensive planning process
- alternative energy
- County airport expansion
- Keystone Opportunity Zones

A joint planning commission public meeting was held September 29, 2011 and a joint governing body public hearing October 27, 2011 to present the draft Comprehensive Plan for adoption as required by Article III of the Municipalities Planning Code (MPC). The Plan, along with the Regional Transportation Plan and Regional Park, Recreation, Greenway, and Open Space Plan, were subsequently adopted by all five municipalities (see Appendix F – Adoption Resolutions).

Key Person Interviews

Interviews of key community and business leaders were conducted between January and March 2010 to learn the person's views and their thoughts and suggestions regarding planning needs in the region. A total of 20 individuals were interviewed as follows:

- Dan Kunkle – Executive Director, Lehigh Gap Nature Center
- Matt Bender – Police Chief, Lehighon Borough
- Charles Fritz – Chairman, Franklin Township Planning Commission
- Thomas Beltz – Police Chief, Franklin Township
- Donald Rehrig – Mayor, Lehighon Borough
- Ron Tirpak – Carbon Engineering Inc.
- Peter Salerno – President, Franklin Township Athletic Association Little League
- Clark Shoenberger – farmer
- Matt MacConnell – President, Lehigh River Stocking Association
- John Wiczorek – Chairman, Mahoning Township Board of Supervisors
- Kevin Strunk – President, The Crossroads Group
- Pat Reilly – President, Mauch Chunk Trust Co.
- David Masenheimer – President, Pencor Services
- Lonnie Kresge – Mack Trucks
- Elissa Thorne – President, Partners for Progress; Vice-President, D&L National Heritage Corridor
- Rich Emmert – President, Lehighon Area Soccer Club
- Robert Slaw Jr. – Chairman, Mahoning Township Planning Commission
- Phil Cinamella – farmer
- Danadee Miller-Boyle – USDA Farm Service Agency
- James Kraky – Superintendent, Lehighon Area School District

A summary of the responses to the key person interviews follows, with the complete results included in Appendix A:

1. How would you describe the quality of life in the region (quality of life is defined as the level of well-being or lifestyle and the conditions in which you live)?

Of the 20 interviewees, “good” was selected by the highest number (9), while seven (7) responded “very good”. Only three (3) thought the quality of life was “excellent”, indicating that most believed that the quality of life in the area could be better.

2. Which of the following issues do you believe are the most important to the quality of life in the region?

Employment opportunities garnered the most responses (12), followed by management of development (8), and road and bridge conditions (7).

3. What one thing would improve the quality of life in the region?

More and improved job opportunities were listed by the most interviewees (8), with improved traffic and road conditions mentioned on five (5) occasions.

4. Part of the regional comprehensive planning effort is an expanded transportation component. Which, if any, of the following areas do you consider the most problematic, dangerous, or in need of improvement in the region?

The PA Route 209/443 intersection was selected by most respondents (13), followed by the Rt. 443 corridor (7). Under the “other” category, the McCall Bridge was specifically listed by four (4) interviewees.

5. Which, if any, of the following public or alternative transportation options would you like to see made available or expanded in the region?

Bus service received the most responses (8), while park and ride lots was selected by seven (7) respondents. Bike facilities (e.g. – bike racks or lockers) and “none” each garnered four (4) responses.

6. What other transportation improvements do you feel are needed in the region?

General road improvements and maintenance of existing roads and bridges were listed most frequently (11), with improved bus service mentioned on four (4) occasions. Bypasses around Leighton and Jim Thorpe were listed by three (3) interviewees.

7. The region will be undertaking a park, recreation, greenway, and open space study next year. What types of parks and recreation facilities do you feel need to be provided or expanded in the region?

Playing fields (soccer, baseball, etc.) and river access for boating/canoes were selected by most respondents (9), followed by nature preserves/greenways (8) and bike paths or trails, picnic areas, and playing courts (tennis, basketball, etc.) at seven (7) each.

8. Are you aware of any existing community plans that may influence community planning, transportation, or parks, recreation, or open space in the region?

The Packerton rail yard site was listed most frequently (4), with comments suggesting that recreational uses were the best uses suited for the site and difficulties developing the site due to access and floodplain issues. Continued improvements to the Lehigh

River corridor were mentioned by three (3) interviewees, specifically the D&L Trail and Canal.

9. Do you have any other comments relative to this interview or the future of the region?

The most recurring theme of the comments received related to planning, land use and zoning (10). Transportation was referenced four (4) times, while conservation of natural and cultural resources and economic development were the theme in three (3) comments each.

Citizen Survey

A public opinion survey was prepared and mailed to a 10% random sample of households in the region. A total of 878 surveys were sent between February 22 and March 26, 2010. 126 surveys were returned, for a response rate of 14%. A summary of the results of the citizen survey follows, with the complete results included in Appendix B:

GENERAL INFORMATION

1. In what municipality do you reside and/or own property?

Nearly 35% of those who responded to the survey reside and/or own property in Franklin Township. This is proportionally higher than the percentage of the region's 2009 population estimate, 27.2% (see Appendix C). This higher rate of return from Franklin Township residents may be due to the fact that the return address for the surveys was the township building, making it more convenient for their residents to drop-off the completed surveys vs. mailing. Over 29% of the survey respondents reside and/or own property in Lehigh Township, slightly less than its proportion of 2009 population. Over 20% of the respondents reside and/or own property in Mahoning Township, while the remaining 14.3% were associated with East Penn Township. No surveys were returned from residents or property owners of Weissport Borough.

2. Are you a resident property owner, a resident non-owner (renter), a business owner, a non-resident property owner (landlord), or other?

Homeowners comprised 83.6% of the survey respondents, significantly higher than the 78.2% owner-occupied housing distribution from the 2000 Census. Only 7.5% of the surveys were completed by renters, compared to a renter occupied housing unit rate of 26.7% in 2000. This disparity in return rates between homeowners and renters is not unusual since homeowners have more of an economic investment in their communities, while renters tend to be less directly affected by and therefore less concerned with government affairs.

3. How long have you lived in the region?

Over 66% of the respondents have lived in the region over 20 years, indicating a stable population with strong connections to and vested interests in the future of the area.

4. How many members of your household fit the following age categories (including yourself): pre-school (age 0-5), school age (age 6-19), young adults (age 20-24), adults (age 25-54), young seniors (age 55-64), and mature seniors (age 65 and over)?

Consistent with its larger age range, adults (age 25-54) were the largest age group at 34% of the total household members responding to the survey. Mature seniors (age 65 and over) were the

second largest age group at 23.8%, compared to 18.2% of the region’s population in this category in the 2000 Census. The proportionally higher rate of return from retirement age residents may be due to their available free time and long time involvement and experience with the region’s issues.

QUALITY OF LIFE ISSUES

5. How would you describe the quality of life in the region (quality of life is defined as the level of well-being or lifestyle and the conditions in which you live)?

Nearly 75% of the respondents described the quality of life in the region as either “good” (40.7%) or “very good” (34.1%). Since only 8.9% rated the region “excellent” compared to 16.2% as “fair” or “poor”, this does indicate that the quality of life could and should improve. These rates are consistent with those observed from the key person interviews.

6. Why did you choose to live in your community?

The most frequent response to this question was “raised here from childhood” (21.6%), followed by “near family and friends” (17.8%) and “attractiveness/character of the area” (10.5%). “Safety/security/low crime rate” followed closely at 9.8%. Interestingly, “quality of schools” received only 2.4% of the total number of responses. As with the residency question in #3, this reflects the deep family roots prevalent in the area and the important stake that the residents have in the region’s future.

7. Which of the following issues do you believe are the most important to the quality of life in the region?

Consistent with the key person interviews, “employment opportunities” was mentioned as the most important to the quality of life in the region. “Taxes” were listed as the second most important, followed by “maintaining rural character” and “protection of drinking water”. The least important were “stormwater management/flooding”, “public sewage facilities” and “public water service”.

8. What one thing would improve the quality of life in the region?

Although there were 40 different answers to this open-ended question, the most frequent response was overwhelmingly “more/better quality employment opportunities locally”. This issue was mentioned by nearly 25% of the respondents and is consistent with the major regional issue identified during the key person interviews. “Lower taxes/better tax structure” and “more/better law enforcement” were tied for second with 5.9% of the respondents each.

9. Other than a change in employment, what might make you leave the region?

Also an open-ended question, which received 20 different answers, “property taxes” was listed as the most frequent reason for leaving the region (29.5% of the respondents). “Overpopulation/over development” was the second most frequent response (16.1%).

LAND USE REGULATION AND ADMINISTRATION

10. Please indicate your opinion on how each of the land uses listed below should be approached in the region.

In the order of the number of votes received, the respondents indicated that the region should promote further development of home businesses, light industrial uses, and elderly housing. Small scale commercial uses received the same number of votes for “promote further development” and “maintain current levels”. According to the respondents, further development should be limited for low income housing, airports, and large scale commercial uses (e.g. – shopping center/mall). All other land uses (i.e. – agricultural uses, assisted living/long-term care, child day care, mixed residential/commercial uses, multi-family residential uses, office or office park, and single-family residential uses) received the most votes for “maintain current levels”.

11. Given that the same number of lots would be built on a given piece of land, which of the following development patterns would you prefer to see in the region?



A. Conventional Development



B. Cluster Development

The largest percentage of respondents (26.5%), preferred a combination of conventional, cluster, lot averaging, village or “new town” design options be used in the region. Over 18% preferred cluster development alone.

NATURAL AND ENVIRONMENTAL RESOURCES

12. Which of the following resources are most important to you in terms of regulation and protection?

Groundwater quality and quantity was mentioned as the most important resource most frequently (22.9%). “Streams and rivers, including vegetative buffers along their banks” was second (14.9%) and “wildlife habitat/preservation of natural diversity, including State Game Lands” third (12.1%). Steep slopes were ranked as the least important (1.3%).

13. How satisfied are you with open space protection in the region?

Indicating a near balance of opinion, 34.8% of the respondents replied “dissatisfied” or “very dissatisfied” and 33.1% are “very satisfied” or “satisfied”. Those who are “neither satisfied nor dissatisfied” totaled 32.2%. Reflecting the degree of satisfaction or dissatisfaction, significantly more respondents were “very dissatisfied” (15.7%) than “very satisfied” (9.6%).

PUBLIC FACILITIES AND SERVICES

14a. Rate the following facilities or services in terms of meeting the needs of area residents.

All eighteen (18) facilities or services listed were rated “adequate” for meeting the needs of area residents, except maintenance of local roads, which was rated “inadequate”. The closest gap between “adequate” and “inadequate” ratings related to maintenance of state roads. Services rated the most adequate were trash removal, ambulance services, electric service, and fire protection.

14b. Would you support more funding for any of the following services?

Only fire protection, libraries, and maintenance of local roads received more votes for increased funding, while the remaining fifteen (15) facilities or services were mentioned under “do not increase funding”. Seven (7) of these received extremely low support for increased funding (i.e. – less than 20% of the respondents). Maintenance of state roads received the same of votes for “increase funding” and “do not increase funding”.

15. What services should be considered on the regional level vs. the municipal level to improve the quality of service and/or to reduce costs?

Services receiving the most votes for regional consideration included police protection, recycling, road maintenance/snow removal, and parks and recreation. Public water service received the fewest responses for regionalization.

PARKS AND RECREATION

16. What types of parks and recreation facilities would you like to see provided or expanded in the region?

Recreational facilities mentioned the most frequently were nature preserves/greenways, bike paths or trails, and hiking trails. A BMX course and ice hockey rink were the least frequently listed by the respondents.

17. How would you rate the availability of recreation programs for the listed group?

Groups mentioned as not having enough recreation programs in the region included high school students, young adults (age 19-39), adults (age 40-65), mature adults (age 65+), families, and people with disabilities. The group receiving the highest number of votes for “not enough” were adults (age 40-65). Recreation programs for the remaining groups (i.e. – pre-school, elementary students, and middle school students), including the overall availability of programs, were rated by a majority of the respondents at the “right amount”.

18. Where do you think the Central Carbon County region should focus its parks, recreation, and conservation efforts and finances in the future?

Given the choice of selecting “high priority”, “priority”, “low priority”, or “not necessary”, none of twelve (12) actions were selected as “high priority” issues. The following eight (8) were listed as **priorities**:

- improving existing parks and playgrounds
- developing trails and greenways

- protecting open space and natural resources
- developing walking/biking connections between schools, parks, and neighborhoods
- developing volunteer involvement with parks, trails, and special events
- expanding promotion of available parks and recreation programs
- expanding the availability/sharing of school district facilities
- expanding cooperative efforts among the region’s municipalities for parks, recreation, and conservation

The remaining four were mentioned as **low priorities**:

- purchasing land and developing new parks
- expanding recreation programs and services
- building an indoor recreation center with gymnasium
- building athletic fields

Two (2) of these, building an indoor recreation center with gymnasium and building athletic fields, received significant “not necessary” votes.

19. Please provide your impression of the existing local parks in the Central Carbon County region.

The existing parks in the region were rated “good” by the most respondents in terms of cleanliness, attractiveness, safety, location, and facilities available; while the second closest rating was “fair” for all five categories. No category received any significant “excellent” votes. Asked to describe or identify any park with a “poor” rating, the Lehighon Ashfield playground was listed by the most respondents (3), followed by Baer Memorial Park (2), Beltzville State Park (2), the Grove park in Lehighon, and “not enough local parks in Mahoning Township” (2). Consistent with the answers regarding the quality of life in the region, these responses indicate that the condition and maintenance of the area’s parks need to be improved for the enjoyment and safety of users.

20. If we could do one thing to improve parks and recreation in the Central Carbon County region, what do you think it should be?

Of the 35 different comments received from this open-ended question, overwhelmingly the response was “charge an entrance fee, especially for non-residents and at Beltzville State Park”, mentioned by 24.4% of the respondents. The second most frequent comment, “keep them clean/maintain them”, was listed by 9% of the respondents.

TRANSPORTATION

21. Which, if any, of the following areas do you consider the most problematic, dangerous, or in need of improvement in the region?

U.S. 209/PA 443 and the PA 443 corridor were selected by the most respondents, 35% and 34.4%, respectively. Of the sixteen (16) respondents who listed other areas, the Thomas McCall Bridge received the most votes (5). These responses are consistent with those received during the key person interviews.

22. Which, if any, of the following public or alternative transportation options would you like to see made available or expanded in the region?

Bus service (25.7%) and train service (23.8%) were mentioned most frequently. Airplane/airline service was listed by the least number of respondents.

HOUSING

23. How do you view the following housing related statements?

The most respondents (76) agreed that the region should promote restoration of historic houses and encourage more affordable housing. A majority of the respondents (54.8%) indicated that the region should discourage more rental housing. Whether to encourage additional age restricted housing was closely split between “agree” (40.2%) and “disagree” (35.2%).

OTHER COMMENTS

24. Please use the space below to offer any other concerns/comments that you would like to express about the future of your community or the Central Carbon County region.

Of the 53 different comments received from this open-ended question, the three most frequent responses were “reduce/eliminate property taxes” (6), “leave things alone/keep building to a minimum and a majority of the land rural” (6), and “need more jobs in the area/encourage economic development” (4).

SUMMARY

Based on the initial public meetings, Planning Committee meetings, key person interviews, and citizen survey, the numerous comments were separated into the following major categories and focus areas:

- **Economic Development**

It is obvious from the public participation process that the major issue in the region is the need to encourage economic development and to improve employment opportunities. This includes the development/redevelopment of vacant industrial sites, particularly the Packerton rail yard property, and the revitalization of downtown Lehighon Borough.

- **Transportation**

Traffic congestion and the condition of the area’s roads and bridges are both major transportation issues which need to be addressed to improve the region’s transportation system and economic development potential. The Rt. 209/443/McCall Bridge area and the Rt. 443 commercial corridor are the two priority areas in need of improvements.

- **Community Character**

Housing conditions in the region need to be improved, particularly in the Boroughs of Lehighon and Weissport, and including the preservation of historic structures. Flexible design standards which recognize landowners’ property rights and which allow for a combination of development options and affordable housing should be encouraged for new developments. The housing needs of the elderly also need to be recognized and accommodated in the region.

- ***Natural and Environmental Resources***

Groundwater resources and the region's rivers and streams, particularly the Lehigh River, have been highlighted as major resources in need of protection. The Blue Mountain has also been identified as an important natural and scenic resource.

- ***Community Facilities***

Improving the maintenance and condition of existing parks, including better management of Beltzville State Park, has been emphasized as a major priority for the region. The Appalachian Trail has been recognized as a valuable asset that should be protected and promoted. In terms of additional recreational facilities, natural preserves/greenways and more biking and hiking trails, including the continued development of the D&L Trail, have been identified as needed improvements.

From this public participation process, these five focus areas will be used to develop the subsequent goals and objectives for the region and will serve as the framework and direction for the regional comprehensive plan.

Chapter 3 – Goals, Objectives and Priority Issues

Community Development Statement

What kind of community do we want to create for the Central Carbon County region? What should it look like and how do we make it happen? These are just some of the questions that need be answered in the Regional Comprehensive Plan to develop a vision for the future for the municipalities in the region.

The Statement of Community Development establishes the region's direction on land use development issues. Section 606 of the Pennsylvania Municipalities Planning Code states that municipal zoning ordinances should reflect the policy goals of the community through a statement of community development objectives. It is the foundation for land use controls and provides direction for municipal policies and activities.

GOALS are broad or general vision statements focused on what you want your community to be like in the future (10-30 years). **OBJECTIVES** are measurable statements that, when completed, help towards the achievement of a goal. The goals and objectives developed for the region were assembled from the key issues identified by the Planning Committee at their October 22, 2009 kick-off meeting, key person interviews, citizen surveys, public meetings, previous municipal planning studies, regional (e.g. – Northeastern Pennsylvania Alliance) goals and objectives, and Planning Committee input during the preparation of the Comprehensive Plan. They are organized and grouped around five (5) guiding principles which correspond to the major issues in the region.

Community Goal

Manage development so as to protect and improve the community character; preserve the natural environment and farmland; improve mobility; provide adequate municipal services and public facilities efficiently and cost effectively; and improve the economic and social well-being of the community.

Guiding Principles

1. Ensure the Economic Vitality of the Region

To improve the region's economic vitality, the area needs businesses and industry that provide jobs and tax revenue to support public services and enhance the quality of life. Good land use planning can direct retail, service, and industrial development to appropriate areas and where it builds economic capacity and strengths existing commercial and downtown areas.

Goals:

- Encourage opportunities for managed economic growth and development in the region compatible with the natural and man-made environment, infrastructure, and transportation network.
- Preserve, promote, and develop the cultural, historical, natural, and recreational resources of the region emphasizing their economic development value.

- Recognize Lehighon Borough as the economic center of the region and support the Borough’s revitalization efforts.
- Encourage and promote the redevelopment of “brownfield” sites as a way of reclaiming old industrial sites and providing economic development for the region.
- Concentrate new commercial, office, and industrial activity in or within close proximity to Lehighon Borough where adequate transportation and infrastructure exists.
- Maintain the economic viability of existing commercial districts.
- Promote and encourage job creation and economic development that encompasses emerging technologies.

Objectives:

- Support revitalization of Lehighon’s downtown as the cultural, entertainment, and retail hub for residents of the region through the development of a downtown revitalization plan.
- Strengthen the tax base of municipalities by promoting and encouraging the redevelopment and reuse of existing vacant buildings and sites.
- Promote cultural and recreational tourism within the region.
- Encourage appropriate “clean” industrial uses to locate in areas with adequate services, access, and minimal environmental constraints.
- Continue to develop the Lehigh River corridor as a recreational greenway and waterway.
- Provide a diversity of housing types to ensure the availability of an adequate workforce for area employers.
- Support the efforts of the Carbon County Office of Economic Development, Carbon County Chamber of Commerce, and Northeastern Pennsylvania Alliance (NEPA) to attract new businesses and industry to the region.
- Encourage the redevelopment of the Packerton Yards and Semanoff sites as mixed-use developments which take advantage of the recreational and economic development potential of the Lehigh River waterfront.
- Support the efforts of the Market Towns Initiative through the Delaware & Lehigh National and State Heritage Corridor and the Pennsylvania Downtown Center.
- Encourage and support the participation of Lehighon Borough in the Main Street Program and Elm Street Program.
- Encourage and support the expansion of the Jake Arner Memorial (Carbon County) Airport as an important source and contributor to the economic development of the region, including revisions to the airport ordinances of East Penn and Mahoning Townships to comply with Act 164.

- Support the expansion of fiber optics and broadband systems and “green” technologies and industries in the region.

2. *Improve Mobility*

Improving mobility means providing more transportation choices, designing functional and efficient transportation facilities that complement community character as well as accommodating traffic, and encouraging housing to be situated near work and community facilities. Central Carbon County should continue to encourage and support road improvements that relieve congestion and correct deficiencies, but should also continue to create a network of trails and sidewalks that can be used by pedestrians and cyclists. The region can make alternate transportation methods feasible and desirable by promoting paths, encouraging a mix of land uses, and by making streets pedestrian and bicycle friendly.

Goals:

- Provide targeted traffic improvements to meet capacity needs and increase mobility, including the Thomas J. McCall Memorial Bridge, major corridors (including US Route 209 and PA Route 443), and key intersections.
- Apply sound access management strategies to balance mobility and accessibility, thereby supporting smart growth land development throughout the region.
- Ensure adequate access for residents, particularly in areas where flooding is an issue.
- Enact regulations to ensure developments adhere to appropriate design standards and complete traffic improvements to mitigate their traffic impacts.
- Establish a regional connected network of multi-modal facilities to encourage walking and biking, thereby increasing mobility and reducing the dependency on motor vehicles and their impact on the environment and quality of life.
- Ensure unpaved public roadways are properly constructed and maintained.
- Viable rail service should be maintained within the region to support the movement of goods and support development.
- Support the expansion of the Jake Arner Memorial Airport in a manner that will mitigate impacts to adjacent properties to the maximum extent possible.
- Expand the fixed-route public transit services provided in the region provided by Carbon County Community Transit (CCCT) and run by the Lehigh and Northampton Transportation Authority (LANTA).

Objectives:

- Encourage and support the replacement of the McCall Bridge.
- Encourage and support safety, operational, and capacity improvements along the Route 209 and 443 corridors.

- Adopt access management guidelines for new development and redevelopment along the Route 209 and 443 corridors.
- Adopt Official Maps to reserve areas for anticipated roadway realignment, widening, or relocations.
- Continue to support the construction of the PA Turnpike–PA Route 903 Slip Ramp Project in Penn Forest Township as a way to reduce traffic through the Borough of Lehighton to Jim Thorpe.
- Identify and alleviate traffic hazards such as poor or inadequate shoulders, clear site visibility problems, and poor road surface conditions.
- Develop municipal roadway design standards with greater regional consistency, including traffic signal service agreements.
- Adopt ordinances containing guidelines for the completion of traffic impact studies for new land developments in order to identify traffic impacts and assign responsibility for mitigation improvements.
- Develop appropriate design standards to preserve scenic roadways, villages, and historic resources.
- Improve and enhance the aesthetic quality of all major entrances and gateways to the region.
- Promote development and transportation designs that incorporate multi-modal features, including paved shoulders, bicycle lanes, and sidewalks.
- Encourage and support efforts to develop additional public transportation service, including additional routes, destinations, and service hours.
- Encourage and support efforts to expand the Jake Arner Memorial (Carbon County) Airport in a manner that mitigates the noise, environmental, and safety impacts.
- Investigate the availability of rail freight service to the Packerton site as a way to encourage redevelopment of the area.
- Develop bicycle and pedestrian facilities throughout the region.
- Participate in and secure funding for improved bicycle and pedestrian facilities to the region’s school facilities through the Federal Safe Routes to School program.
- Encourage and support road improvements along Bicycle PA Route L to improve rider safety.
- Develop safe pedestrian links as part of revitalization efforts in the Boroughs of Lehighton and Weissport.
- Develop strategies to provide adequate parking supply necessary for successful revitalization efforts.

- Coordinate regional transportation studies through the Northeastern Pennsylvania Alliance (NEPA) to develop a regional implementation plan for proposed improvement projects.
- Through NEPA, pursue private, municipal, state and federal funding opportunities to implement high priority projects.
- Continue to coordinate regional transportation improvements with the Federal Highway Administration (FHWA), PennDOT, Pennsylvania Turnpike Commission, and NEPA to better achieve common goals.
- Coordinate land use and transportation planning to achieve the land use and transportation objectives of the region.

3. Protect and Improve the Character and Sense of Community in the Region

Vibrant communities are attractive, walkable, affordable, and economically healthy; and meet the needs and preferences of residents. The region has a distinct history and character that defines the community's sense of place. By identifying what makes Central Carbon County unique, the region can develop policies that foster attractiveness and economic vitality. Thriving town centers are particularly important because they serve as the foundation and focal point for an area.

Goals for Land Use:

- Preserve and enhance the region's valuable community, economic, natural, and agricultural resources through the protection of these resources and by encouraging new development in existing economic centers that support and enhance community character, the local economy and tax base.
- To preserve and strength the identity of Lehighton Borough as the urban center of the region.

Objectives:

- Encourage the revitalization efforts of the Boroughs of Lehighton and Weissport to ensure their place as the urban hub of the region.
- Support the funding and preparation of a downtown revitalization plan for the Borough of Lehighton.
- Adopt appropriate zoning and subdivision regulations to encourage new development that create a network of open space and a sense of community.
- Cooperate in expanding the industrial base of the region and in attracting new job opportunities to the area.
- Encourage adaptive reuse and sensitive infill development to enhance economic revitalization and to improve community character and the local economy.
- Encourage transfer of development rights (TDRs), purchase of development rights, conservation easements, historic districts, and agricultural conservation easements with the intent of creating passive open space in targeted

agricultural and natural resource areas to form greenbelts and a network of open spaces.

- Enhance the region’s potential as a tourist-vacation resort area.
- Continue to encourage and support the creation and expansion of Agricultural Security Areas.
- Adopt land use and zoning regulations that provide incentives and opportunities for the continuation of agricultural uses in the region (e.g. – accessory uses, secondary income uses, support businesses) and recognize the landowners’ full range of property rights.
- Reduce or eliminate regulations which unduly burden the ability of farmers to continue operations, including the tree farms in the region.

Goals for Housing:

- Provide housing opportunities in appropriate areas to meet the needs of all the region’s residents, regardless of household size, age and/or income.
- To preserve and/or improve the quality and livability of all neighborhoods in the region.

Objectives:

- Encourage innovation in housing and neighborhood design.
- Manage new housing through a balanced pattern of development that preserves and enhances existing communities and the natural and scenic landscapes of the region.
- Encourage new neighborhoods designed for people rather than for the automobile.
- Encourage village-style development and discourage sprawling development patterns that consume existing open space, increase traffic and infrastructure costs.
- Provide a diversity of housing options for residents throughout the region.
- Maintain, preserve, and revitalize the existing neighborhoods of Leighton and Weissport Boroughs, particularly their older housing stock, and create new residential opportunities that make them attractive for homeowners and renters.
- Stabilize existing residential areas in older communities and neighborhoods through effective code enforcement and improvement of the housing stock.
- Ensure that municipal land use and zoning regulations provide for adequate senior housing (e.g. – assisted living, nursing homes, “in-law suites”, elder apartments, etc.).

4. *Conserve the Region's Natural Features and Cultural Resources*

Successful communities identify the areas that are most important to protect, such as streams, forests, farmland, scenic views, or historic structures, and guide growth into areas better suited for development. Natural landscapes and historic structures help define an area and, therefore, conservation of these resources contributes to the region's character and economic health.

Goal for Natural Resources - Protect the region's important natural resources and open spaces, including but not limited to water resources, headwater areas, wetlands, floodplains, stream buffers, prime and important agricultural soils, steep slopes, woodlands, and important habitat areas.

Objectives:

- Adopt land use and zoning regulations which are consistent with state and federal regulations for the protection of natural resources.
- Discourage the excessive alteration of existing topography.
- Limit the disturbance of land resources, such as steep slopes and woodlands, to prevent increased runoff and degradation of stream valleys and headwater areas.
- Encourage the implementation of best management practices for erosion and sedimentation control and stormwater management.
- Promote innovative stormwater management and wastewater disposal methods that emphasize the recharge of groundwater and water balance.
- Preserve and protect woodland resources to maintain wildlife habitat, natural diversity, and the rural character of the region.
- Encourage and support the preservation of Blue Mountain.
- Promote and encourage energy conservation construction and industries involved in "green" technologies.
- Adopt land use and zoning provisions that permit alternative energy facilities (e.g. – windmills, geothermal heat pumps, outdoor furnaces, etc.).
- Preserve and promote the inter-connection of open space and greenways to maintain wildlife habitat and natural diversity.
- Require the identification and preservation of natural features as the first step in the subdivision and land development design process.

Goal for Historic Resources – Conserve and preserve the historic resources of the region and protect the cultural setting of these resources from incompatible development.

Objectives:

- Identify potential historic resources and investigate the potential eligibility of historic districts in the region.

- Coordinate and make consistent the various protection measures currently in place.
- Promote and encourage the preservation and, where appropriate, the adaptive reuse of historic properties through land use and zoning provisions that provide incentives for preservation (e.g. – permitted uses, reduced area and bulk requirements, density bonuses, etc.).
- Promote and encourage cultural tourism within the region.
- Develop a comprehensive funding strategy for implementation and provide materials to landowners of historic properties outlining options available to preserve and/or rehabilitate historic structures.

5. Build and Maintain a Livable Community with Good Services and Facilities

Adequate community services and facilities such as police and fire protection, schools, libraries, and amenities like parks are important community assets that should be provided and maintained to improve the quality of life in the region.

Goal for Community Facilities - Provide adequate and efficient community facilities and services for residents of the region.

Objectives:

- Provide adequate public wastewater systems that generally concentrate development in and around existing centers where infrastructure is already provided and consistent with each municipality's Act 537 Sewage Facilities Plan.
- Provide public water service with sufficient capacity to meet future needs of the region, sufficient treatment to supply safe drinking water to the region's residents, and reasonable rates to encourage economic development.
- Permit community water and wastewater systems in areas where public service is unavailable as a way to encourage village-style or cluster development and to provide a higher level of treatment and service.
- Provide appropriate community services, facilities, and utilities that are regionally coordinated to reduce costs and the duplication of services.
- Support and promote the development of the region's technological infrastructure to become competitive and foster future economic growth, and to take advantage of nearby markets.
- Recognize that schools should be integrated physically and socially into the community.
- Promote and develop the cultural, historical, natural, and recreational resources in the region as destinations with an educational focus.
- Support area workforce development and educational programs that promote economic development initiatives in the region.

- Provide cost effective emergency management systems, including exploring the feasibility and cost effectiveness of a regional police force and ambulance service.
- Support the improvement of the technology infrastructure in the region (e.g. – fiber optics, WI-FI, broadband and high speed Internet) to promote economic development.
- Expand programs, such as the Community Supported Agriculture program, to enhance the economic viability of farming, while educating the public on the important role of agriculture in the community and preserving farmland throughout the region.
- Develop relationships with the Lehigh Area School District and area higher educational institutions to cultivate awareness and appreciation of the region’s natural, historical, cultural, and recreational resources.
- Support and promote initiatives that incorporate linkages between emerging job markets, targeted economic development initiatives, and the educational institutions in the region.

Goals for Parks and Recreation:

- Enhance and make the best use of existing park areas and recreation facilities and plan for future parkland acquisition and development.
- Connect residential areas, schools, parks, recreation facilities, and other community destinations through the acquisition and development of trails and greenways and preserve and protect conservation areas, open space, and important natural resources.
- Expand and coordinate recreation program opportunities for all ages at municipality-owned and school district-owned park areas and recreation facilities.
- Operate the parks, recreation facilities, greenways, trails, and open space system effectively and efficiently through volunteer and staff leadership and partnerships.
- Ensure that park areas and recreation facilities are well-maintained, meet current safety standards, and provide an enjoyable environment for visitors.
- Secure adequate financing to maintain the existing parks, trails and greenways; acquire and develop additional park areas and recreation facilities; and offer recreation programs for all citizens.
- Build community awareness of and regionally promote the Central Carbon County park areas and recreation facilities, open space areas, greenways and trails, and recreation program opportunities to improve the quality of life of residents and to enhance economic development by attracting visitors to the area and encouraging businesses to locate in the region.

Objectives:

- Rehabilitate existing park areas and recreation facilities to the extent possible, addressing safety concerns as a first priority.

- Strive to meet the National Recreation and Park Association parkland acreage standard of 10.5 acres per 1,000 population region-wide, rather than for individual municipalities, through the acquisition of parkland and the development of new facilities as a region.
- Develop Mahoning Township Park.
- Add recreation facilities within the existing parks to enhance the recreation opportunities available for residents.
- Use the region’s natural features and historic resources as the backbone for recreation and economic development planning in the region.
- Link or inter-connect greenway nodes or destination points within the region to form a linear network of open space and recreational areas.
- Facilitate the provision of community recreation programs by other providers.
- Increase the number of outdoor recreation activities, special events, and recreation programs held at the region’s park areas, recreation facilities, and trails.
- Invest in outdoor recreation programs and activities that target participants at a young age so that they will be life-long participants.
- Improve communication and identify opportunities for collaborative efforts and sharing of resources by establishing a regional network of park area, recreation facility, and recreation program providers.
- Develop an adopt-a-park program to help with improvements to and maintenance of park areas.
- Establish a 501(c)(3) “Friends” organization to support the municipal park areas and the D&L Trail.
- Provide safe and secure parks that protect both visitors and public property.
- Support the existing park maintenance program by moving the municipalities towards a joint park maintenance management plan as a region.
- Provide adequate financial support for parks, recreation, trails, and greenways through municipal operating budgets.
- Identify potential sources of funding to improve the region’s parks and recreation opportunities.
- Utilize joint marketing and promotion of the region’s park areas, recreation facilities, and recreation programs.
- Increase information available on the Internet about the region’s recreation opportunities.
- Promote river recreation as a means to increase the region’s tourism.

To provide focus for the region, the most important and critical of these numerous goals and objectives are identified as priorities in the Implementation Strategy section of *Chapter 5: Action Plan/Implementation Strategy*.

The Region's Vision for the Future

What will the Central Carbon County Region look like if we are successful in promoting the Guiding Principles and the Goals and Objectives?

- New development will be accommodated to allow for expected growth.
- New development will respect the natural environment.
- The region will be comprised of a variety of land uses – agricultural, residential, commercial, industrial, and recreational – that balance and inter-relate economic development with preservation of open spaces and greenways.
- Neighborhoods and activity centers will be interconnected with streets and paths. Residents will be able to get to community centers, parks, and schools by a network of pathways. The trail system will be expanded.
- Special places, such as important farmland, historic sites, and scenic landscapes, will be preserved for future generations.
- The Lehigh River corridor will continue to be the focal point for recreational activities and tourism in the region and will contribute to the economic growth of Lehighton and the area.
- Unblighted and vibrant neighborhoods will exist that involve existing residents and which attract and retain new residents.
- The Borough of Lehighton will become a viable urban center and the economic foundation of the region.
- The region will contain quality employment, training opportunities, and affordable housing to promote a diverse and sustainable workforce.
- New non-residential development will be limited to designated areas along the region's major highways and the Packerton Yards/Semanoff sites, and will contain a mix of uses. Businesses in designated commercial and industrial areas will contribute to making the region a balanced community by providing jobs and contributing to economic vitality.
- The region's highways will function in a safe and efficient manner.
- The region will contain a well-maintained transportation network that provides multi-modal access to urban and rural areas within the region and beyond.
- Residents of all ages will have access to safe and convenient community services, such as parks, recreational programs, libraries, fire and police protection.
- Partnerships will exist between education and business, and other public/private entities, to promote "brain gain" instead of "brain drain".
- The region will contain sustainable, clean, environmentally friendly energy sources and industries.
- Intergovernmental cooperation that promotes sound land use, safe and efficient infrastructure, and consolidated services will be a common practice.

- The region will offer an enhanced quality of life for all of its citizens.

Chapter 4 – Regional Issues and Focus Areas

To focus attention on the major planning issues facing the region, the Central Carbon County Regional Comprehensive Plan is structured around five (5) topics that consistently surfaced during the public participation phase of this project:

- Economic Development
- Transportation
- Community Character
- Natural Features and Cultural Resources
- Community Facilities and Services

The various planning components required of the MPC and the chapters in this Plan are organized around these regional focus areas, rather than the traditional format of comprehensive plans. The planning elements for each of these areas are presented in this chapter, with the detailed supporting information provided in the appendices.

Principle 1 – Ensure the Economic Vitality of the Region

To improve the region's economic vitality, the area needs businesses and industry that provide jobs and tax revenue to support public services and enhance the quality of life. Good land use planning can direct retail, service, and industrial development to appropriate areas and where it strengthens existing commercial and downtown areas.

Local and regional land use policies can affect businesses and their ability to survive and expand. A regional approach to locating non-residential development can better meet the economic and service needs of residents and assist with the local tax base.

To strengthen existing commercial areas and assist in revitalizing downtown areas, economic and business development should be limited to areas so designated on the future land use plan map (see *Principle 3: Protect and Improve the Character and Sense of Community in the Region*). The size and appearance of newly developed and redeveloped properties should enhance the character of existing communities. The ultimate redevelopment of the Packerton Railyard and Semanoff sites are particularly critical to the economic future of the region and the revitalization of Lehighon Borough's downtown.

Background Data and Information

Background data and information on the existing economic conditions in the region highlight the strengths and weaknesses in the area economy. This information provides a basis for recommendations to expand employment opportunities and income levels for area residents and improve the quality of life in the region. A detailed inventory and analysis of the economic data for the region is included in Appendix D. A summary of this information follows:

Comments from Public Participation Process

A major issue raised during the public participation process for this Plan (Planning Committee meetings, key person interviews, citizen survey, and public meetings) is the need to encourage economic development and improve employment opportunities. Development/redevelopment of vacant industrial sites, particularly the Packerton rail yard property, and the revitalization of downtown Lehighon Borough are of particular concern.

Summary of Economic Background Data and Information

Reflective of the national economy, revenues in Lehighon Borough, Mahoning Township, and Weissport Borough decreased from 2008 to 2009. East Penn Township's revenues increased primarily as a result of the substantial amount of grants and loans received in 2009, sources of revenue that can be relied on consistently. While only Weissport Borough experienced a slight budget deficit in 2008 (\$3,208), East Penn Township's and Lehighon Borough's expenditures were higher than their revenues in 2009. The budget shortfalls were absorbed through a reduction in year end fund balances, a trend that is not sustainable without reducing important reserve funds or incurring additional debt.

Comparatively lower income levels in Lehighon and Weissport Boroughs indicate the need for increased job opportunities, higher paying jobs for working families, and revitalization of the region's urban areas. If the area is to compete for jobs and attract new industries and businesses, the region's below average educational levels will need to improve. Emphasis should be placed

on vocational skills needed in today’s economy (e.g. – information technology, communications, health services).

The major employers in the County are concentrated in the fields of recreation, health services, government, and education. These employment areas should serve as a foundation for economic development in the region.

From the public’s perspective, the major issue in the region is also the need to encourage economic development and to improve employment opportunities. This includes the development/ redevelopment of vacant industrial sites, particularly the Packerton rail yard property, and the revitalization of downtown Lehighon Borough. This is enforced by a recent NEPA regional economic development survey, which also indicated the need to update the region’s aging infrastructure. The 2005 Regional Conference on Transportation and Land Use for Economic Development and the Wall Street West initiative both emphasize the need to improve the region’s technology infrastructure.

Over 650 acres of vacant land in the region are currently zoned for economic development activities such as commercial, industrial, and institutional uses.

The types of business development that should be attracted or retained in the region, according to the NEPA survey, are advanced technology, manufacturing, distribution/warehousing, and e-commerce. The region’s “blue-collar” work ethic should be promoted as a way to attract new industries and businesses, but recognizing that the diversity of jobs in the area needs to increase to avoid reliance or dependency on manufacturing jobs. To increase job diversity, businesses involved in professional, scientific, financial, insurance, and real estate activities need to be attracted to the area. Numerous sources of financial and technical assistance are available from the state and Carbon County to help attract and retain businesses in the region.

The tax rates of the individual municipalities in the region and the Lehighon Area School District are competitive with surrounding municipalities and school districts in Carbon County. The region’s total real estate tax rate is actually at a competitive advantage when compared to the Panther Valley School District, which has the highest rate in Carbon County. Average home prices are more affordable in the region than in adjacent municipalities in Lehigh County.

Economic Development Plan

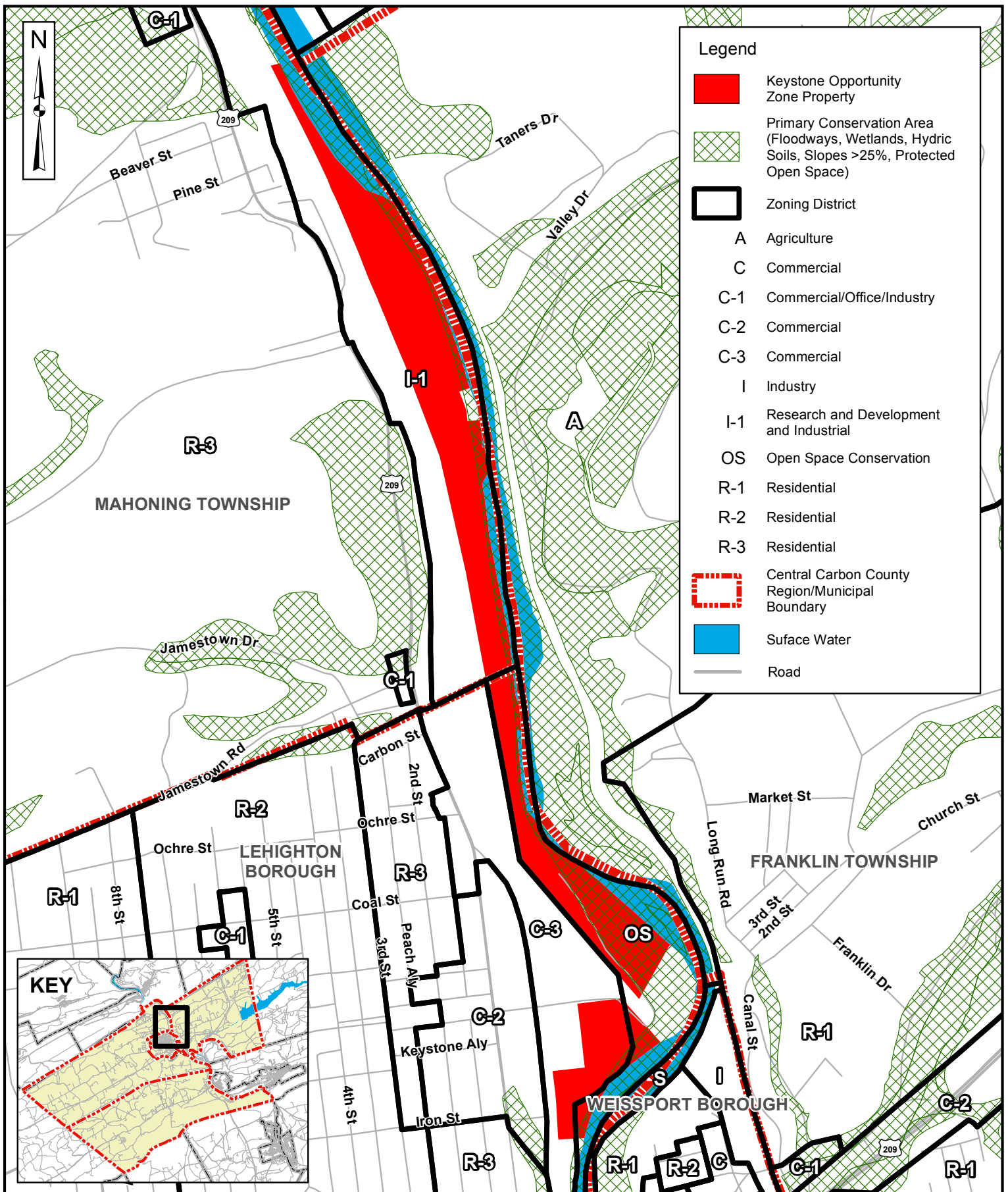
Target Areas for New Economic Development

Packerton Yards and Semanoff Property

Located between PA Route 209 South (Sgt. Stanley Hoffman Boulevard) and the Lehigh River, the Packerton Yards and Semanoff properties (Map 4.1-1) are key to the economic development of the region and particularly the revitalization of Lehighon Borough due to their close proximity to the central business district. Combined, they comprise a total of 82.8 acres with significant highway and river frontage.

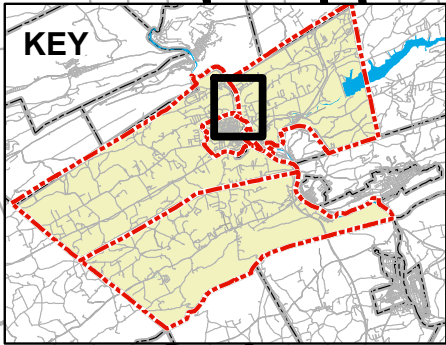
The Packerton Yards site is 71.5 acres located in Lehighon Borough and Mahoning Township, while the





Legend

- Keystone Opportunity Zone Property
- Primary Conservation Area (Floodways, Wetlands, Hydric Soils, Slopes >25%, Protected Open Space)
- Zoning District
- A Agriculture
- C Commercial
- C-1 Commercial/Office/Industry
- C-2 Commercial
- C-3 Commercial
- I Industry
- I-1 Research and Development and Industrial
- OS Open Space Conservation
- R-1 Residential
- R-2 Residential
- R-3 Residential
- Central Carbon County Region/Municipal Boundary
- Surface Water
- Road



**Map 4.1-1:
Packerton Yards and
Semanoff Property**

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Semanoff property is 11.3 acres in size located entirely in Lehighon Borough (Table 4.1-1). Although 78.4% of the properties are located in the 100-year floodplain, only 28.2% is located within the floodway area that must be kept free of encroachments according to the Federal Emergency Management Agency (FEMA). Over 59 acres are therefore available for development if properly elevated above the 100-year flood level or floodproofed.

Table 4.1-1: Packerton Yards and Semanoff Property

	Packerton Yards	Semanoff Property
Location	Lehighon Borough/ Mahoning Township	Lehighon Borough
Owner	Carbon County	Semanov Group LLC & Hudson Holding Co.
Acreage	71.5	11.3
Zoning	Lehighon: C-3 Highway Commercial and OS Open Space Conservation; Mahoning: I-1 Research & Development and Industrial	C-3 Highway Commercial
Water	Public	Public
Sewer	Public	Public
Gas	Yes	Yes
Rail Access	Norfolk Southern with service west to Buffalo NY and east to Jersey City NJ	Norfolk Southern with service west to Buffalo NY and east to Jersey City NJ
Notes	Approximately 1.75 miles of Lehigh River frontage, approximately 30.1% in floodway area and 45.9% in other flood hazard area	Approximately 1,150 feet of Lehigh River frontage, approximately 16.1% in floodway area and 77.3% in other flood hazard area
<small>Source: Your Guide to Tax-Free Properties in Carbon County, Pennsylvania; www.carbonecon.com; www.co.schuylkill.pa.us; municipal zoning ordinances; Carbon County tax parcel and GIS data.</small>		

The Semanoff property and Lehighon portion of the Packerton Yards site are currently zoned C-3 Highway Commercial and OS Open Space Conservation; while the Mahoning Township portion of the Packerton Yards is within the I-1 Research & Development and Industrial district. Both C-3 and I-1 districts allow a variety of commercial, industrial, and institutional uses either by right, conditional use, or special exception (Tables 4.1-2 and 4.1-3). The only residential use permitted is in the C-3 district in Lehighon Borough, where mid-rise multi-family units are allowed.

The County, which purchased the Packerton Yards site in 2005, plans to subdivide the site into seven (7) parcels, six of which are buildable and will be sold for redevelopment.² The remaining parcel may be used for recreation, including a boat launch, or a memorial for railroad workers who worked at the site.³ To date, over \$8 million in federal and state grants have been provided to redevelop the site, including \$300,000 for the purchase of the property and a recent \$2 million Redevelopment Assistance Capital Program (RACP) grant from the Governor’s Office of the

² *Times News*, October 5, 2009, <http://www.tnonline.com/print/node/34219>.

³ *Ibid.*

Budget.⁴ It is estimated that the project could create as many as 300 to 400 jobs when fully developed, with the potential of contributing \$35 million a year to the local economy.⁵

Table 4.1-2: Permitted Uses – Semanoff Property and Lehighon Borough Portion of Packerton Yards

Permitted Uses	C-3 Highway Commercial District	OS Open Space Conservation District
Agriculture, Forestry and Fishing		
Veterinarian, Animal Hospital, Kennel	P	
Construction (SIC 15-17)	S	
Cultural, Entertainment & Recreation		
Club House	S	
Resort Facility	P	
Indoor Target Range	S	
Family Care Facility	S	
Group Care Facility	S	
Miscellaneous		
Bed & Breakfast	P	
Conversion (To Commercial)	S	
Public Administration (SIC 91-97)	S	
Open Space		P
Residential		
Multi-Family Residential - Mid Rise	P	
Services (SIC 60-83, 89) - Small Scale	P	
Services (SIC 60-83, 89) - Large Scale	S	
Storage Facilities, Warehousing, Mini-Storage	P	
Transportation, Communication & Utilities (SIC 40-49)	S	
Trade		
Wholesale (SIC 50 & 51) - Small Scale	P	
Wholesale (SIC 50 & 51) - Large Scale	S	
Retail (SIC 52-59) - Small Scale	P	
Retail (SIC 52-59) - Large Scale	S	
Adult Facilities	S	
<i>P = Uses permitted by right. S = Uses permitted by Special Exception by Zoning Hearing Board.</i>		
<i>Source: Lehighon Borough Zoning Ordinance, adopted August 25, 1997.</i>		

The Packerton Yards is a “Brownfields” (Act 2) site, which is defined as an “abandoned, idle or underused industrial or commercial facility where expansion or redevelopment is hampered by real or perceived environmental contamination”.⁶ Pennsylvania’s Land Recycling Program promotes partnerships among local businesses, local and state government, and financial institutions to restore contaminated site to safe and productive uses. Old industrial site usually have infrastructure in place that can represent cost savings over developing important farmland and open space. Act 2 was designed to eliminate or reduce the bureaucratic obstacles to cleaning up and redeveloping old industrial sites.

⁴ *Times News*, October 5, 2009, <http://www.tnonline.com/print/node/34219>; and July 30, 2010, <http://www.tnonline.com/print/node/120949>.

⁵ *Times News*, July 30, 2010, <http://www.tnonline.com/print/node/120949>.

⁶ <http://www.dep.state.pa.us>.

Table 4.1-3: Permitted Uses – Mahoning Township Portion of Packerton Yards

Permitted Uses	I-1 Research & Development and Industrial District
Administrative activities & offices	P
Assembly from components, such as the assembly of radios, televisions & similar electronic products	P
Fabrication of models or test equipment used in research	P
Manufacture and/or assembly of wood products	P
Manufacture of buildings to be erected elsewhere	P
Manufacture of precision instruments	P
Municipal sewage treatment plants	P
Optical instrument systems development	P
Packaging and bottling activities	P
Pharmaceutical research & production	P
Plastics assembly	P
Printing and publishing activities	P
Radio or television transmitter, including such as an accessory use, if it is of any type requiring licensing by the FCC	P
Research, engineering or testing laboratories	P
Textiles and clothing manufacture	P
Warehouses, distribution centers and truck & bus terminals	P
Wholesale produce & meat markets, mechanical & vehicle repair establishments, dry cleaning & dyeing plants, carpet & rug-cleaning establishments & laundries	P
Accessory buildings & uses customarily incidental to the above uses, such as a restaurant or cafeteria	P
Group homes	P
Any retail sale or distribution of products related to the above permitted uses	S
Airports	C
Communication towers	C
Incinerators	C
Municipal or residual waste transfer centers	C
Open pit mining	C
Recreational facilities for employees	S
Recycling centers	C
Sanitary landfills	C
Self-storage units	C
Temporary residence	S
Treatment centers	C
<i>C = Uses permitted by Conditional Use. P = Uses permitted by right. S = Uses permitted by Special Exception by Zoning Hearing Board.</i>	
<i>Source: Chapter 116 of Mahoning Township Land Use Code, August 23, 2000.</i>	

A *Combined Remedial Investigation Report/Cleanup Plan* was prepared for the Packerton Yards in June 2010 and approved by DEP. It identified two “hot spots” containing high levels of lead and arsenic, and recommended capping of these areas as the site is developed.

The Brownfields Tax Incentive is a federal tax initiative designed to spur the cleanup and redevelopment of Brownfield sites. Under the program, environmental cleanup costs may be treated as fully deductible business expenses for the year in which costs are incurred or paid.

Although a mix of uses is currently permitted on the Packerton Yards and Semanoff sites, it is suggested that the following zoning amendments be considered to further enhance the redevelopment and design of these properties:

- Creation of a “town center” district with a mix of uses, including residential uses as both principal uses and as uses above commercial and office uses. Housing densities should range from medium (townhomes) to high density (apartments, condominiums). Residential uses will provide the population needed to help maintain the existing downtown uses and any new commercial uses in the town center.
- Updated and consistent floodplain regulations in Lehighon Borough and Mahoning Township. Lehighon Borough currently prohibits any new construction that would increase flood heights in the FW Floodway Area, while all new construction is prohibited in the FA General Floodplain Area. However, no regulations exist for construction in the FF Flood-Fringe Area, which according to the Flood Insurance Rate Map (FIRM) for Carbon County, are located in the Borough along the Lehigh River and Mahoning Creek.⁷

In Mahoning Township, no development is permitted in the FW Floodway Area unless the effect of such development on flood heights is fully offset by accompanying stream improvements and all structures are floodproofed. Development is permitted in FF Floodway-Fringe and FA General Floodplain Areas if properly floodproofed.

- Retail commercial uses should be concentrated along Sgt. Stanley Hoffman Boulevard/PA Route 209 South and connected to the downtown as an integrated central business district to help support Lehighon Borough’s downtown, rather than contribute to further losses.
- Establishment of area and size requirements for commercial uses that are more urban than suburban or highway commercial.
- A greater mix of general land use categories that allow the “free-market system” to determine the most appropriate uses based on the size and location of the sites and



⁷ FIRM Flood Insurance Rate Map, Carbon County, PA, effective date June 3, 2002.

economic conditions of the region. Performance standards can be established to eliminate uses which may cause conditions incompatible to town center or residential uses (e.g. – noise, odors, etc.).

- Elimination of the OS Open Space Conservation district in Lehighton Borough and incorporation of open space and recreation requirements into the master plan for the entire town center district. With 23.3 acres or 28.2% of the site located within the floodway and 1.75 miles of river frontage, open space and recreational uses are the most appropriate uses for these areas of the properties as a riverfront park. Both the Packerton Yards and Semanoff properties are the site of existing boat access locations, including a picnic area on the Semanoff site operated by a local whitewater excursion company. Additional uses should include public picnic areas, ballfields, walking and biking paths, gazebos, stream buffer areas, etc. Paths and sidewalks should link the riverfront park to the town center and Lehighton’s downtown. A pedestrian bridge across the Lehigh River linking Weissport and Lehighton Boroughs could be an area defining amenity.

An integrated mixed-use development on the Packerton Yards and Semanoff sites, if properly designed and protected from flooding, will help to contribute to the economic development of the region, the revitalization of Lehighton Borough, and the quality of life for the region’s residents.

Lehighton Borough Downtown Revitalization

Critical to the economic development of the region is the revitalization of Lehighton Borough’s downtown central business district, and vice versa. Many of the major planning opportunities, issues, and goals identified in the 1994 Lehighton Borough Comprehensive Plan for the downtown are still true today, including:

- **Planning Opportunities and Issues Related to Downtown Revitalization**
 - **Decline of the Downtown Business District.** As the population of the Borough has declined since 1950, at the same time that the population of the surrounding townships has increased, many functions of the traditional downtown business district have been replaced by highway commercial centers outside of the Borough (e.g. – PA Route 443). As part of the public participation process for this Plan (Chapter 2), the revitalization of downtown Lehighton Borough continued to be identified as a major issue for the economic development of the region.
 - **The Borough’s Economic Base is in Transition.** The 1994 Comprehensive Plan reported that manufacturing employment for Borough residents had declined between 1980 and 1990, while retail trade and service employment had increased. However, between 1990 and 2000 the percentage of Borough residents employed in retail trade actually declined from 18.6% to 11.7%, while those in service industries continued to increase from 26.7% to 31.4%.⁸ Contrary to regional, county, state, and national

⁸ 1990 and 2000 U.S. Census.

trends, the percentage employed in manufacturing remaining relatively stable between 1990 and 2000, 28% and 27.2% respectively.⁹

- **General Goals and Objectives Related to Lehighton Borough Economic Development**
 - **To improve and to revitalize the Lehighton historical downtown central business district.** Redevelopment of the Packerton Yards site will be critical to the revitalization of the Borough and its central business district. However, unless the population decline in the Borough is reversed and the downtown revitalized, downsizing of the original central business district will need to be considered to create a more viable and sustainable commercial area. If that occurs, commercial uses on the fringe of the existing district would need to be relocated and the property converted to residential use.
 - **Develop a detailed Lehighton Downtown Central Business District (CBD) Economic Revitalization and Physical Improvement Plan and Program.** Although not prepared within the two year time frame targeted in the 1994 Comprehensive Plan, funding from DCED was secured and a consultant for the Downtown Revitalization Plan selected in 2009. However, the local matching funds are never raised and the funding was eventually withdrawn. The plan would have included conceptual streetscape and corridor improvement plans and conceptual site specific redevelopment/reuse plans.
 - **Encourage existing businesses to stay or expand and attract new commercial retail and service businesses to start up in the Lehighton downtown area.** The following approaches are recommended to implement this objective:
 - Provide financial incentives, such as tax deductions, to both existing and new businesses that are located in an area that qualifies under the Pennsylvania Local Economic Revitalization and Tax Assistance (LERTA) Act (see previous discussion under *Background Data and Information*).
 - Improve traffic and parking conditions in the downtown area.
 - Improve appearance of streetscape of First Street.
 - Preserve significant historic buildings and sites in the downtown area and its vicinity.
 - **Establish a Tax Increment Financing District to include the downtown business district and the US Route 209 bypass corridor.** Tax Increment Financing (TIF) provides local redevelopment/industrial development authorities with a mechanism to finance public improvements necessary for economic development. Other financial programs and incentives previously discussed in the *Background Data and Information* section and in Appendix D should also be explored.

⁹ Ibid.

Other Areas Targeted for Economic Development

In addition to the Packerton Yards/Semanoff properties and the revitalization of Lehighon’s downtown, other areas in the region have the potential to create jobs and contribute to the economic development of the area. The various commercial, industrial, and institutional zoning districts that were identified in the *Land Use Potential for Economic Development* map (Map D.1-1) were further analyzed and three (3) other areas are targeted for economic development: PA Route 443/Airport, Turnpike Interchange, and West Bowmans (Map 4.1-2).

Not only were existing vacant parcels identified for development in these areas, but also parcels that were deemed to be under-utilized or used at less than their full economic potential. Of the 1,749.3 acres in these four areas, 1241.4 acres are either vacant or under-utilized (Table 4.1-4). Subtracting the areas unbuildable due to the presence of environmental features such as floodways, hydric soils, slopes over 25%, and wetlands, a total of 857.6 acres are available for development.

Table 4.1-4: Targeted Areas for Economic Development

Area	Size (acres)	Acres Vacant	Acres Under-Utilized	Total Acres Under-Utilized/Vacant	Primary Conservation Areas (acres)	Acres Available for Development
Packerton/Semanoff	214.5	122.0	10.3	132.3	16.0	116.3
PA Rt 443/Airport	863.6	127.4	458.6	586.0	258.2	327.7
PA Turnpike Interchange	321.0	118.8	170.0	288.8	39.5	249.3
West Bowmans	350.3	99.8	134.5	234.3	70.0	164.3
TOTAL	1,749.3	468.0	773.3	1,241.4	383.7	857.6

PA Route 443/Jake Arner Memorial (Carbon County) Airport

In Mahoning Township, commercial and industrial zoning districts adjacent to Lehighon Borough between PA Routes 443 and 902 and along Rt. 443/Blakeslee Boulevard Drive East to the Jake Arner Memorial Airport are currently developed with a variety of uses, including highway commercial and the new Walmart at Troxell Road. Of the 863.6 acres in this targeted area, 327.7 acres are available for development, the majority of which is at or in the vicinity of the airport. The area is zoned C-1 Planned Commercial and I-1 Research & Development and Industrial.

Due to current traffic issues related to existing commercial development along Rt. 443, road improvements will be necessary and any new development will need to be designed to minimize impacts from additional traffic (e.g. – turning lanes, access management, shared access, interconnected parking areas and access drives, etc.). More detailed information on recommended traffic improvements for this corridor is included in *Principle 2 – Improve Mobility in the Region*.

The air transportation system is vital in maintaining an effective network for interstate commerce and economic development. The Jake Arner Memorial (Carbon County) Airport, a basic general aviation facility, is located between PA Routes 443 and 902 east of Seneca Road in Mahoning Township. Owned by the Carbon County Airport Authority, it currently provides a limited role in the economic development of the region due to its small size.

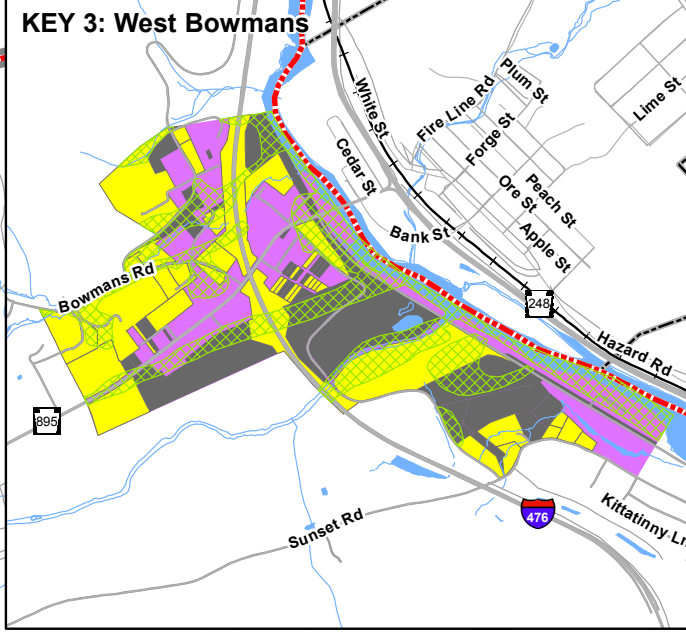
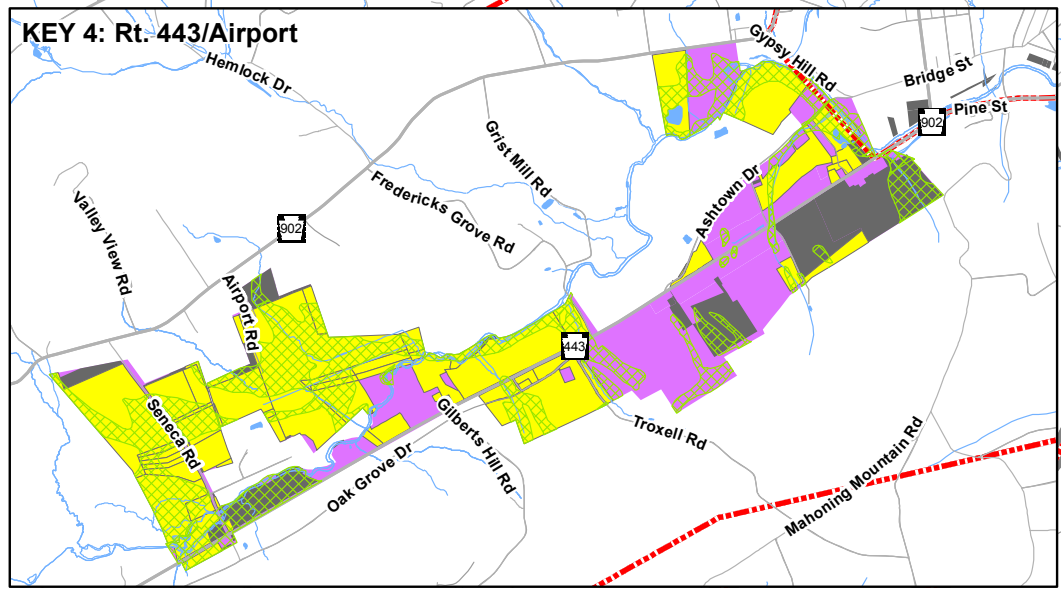
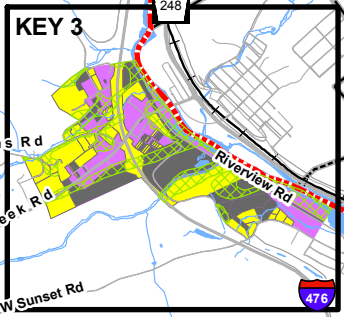
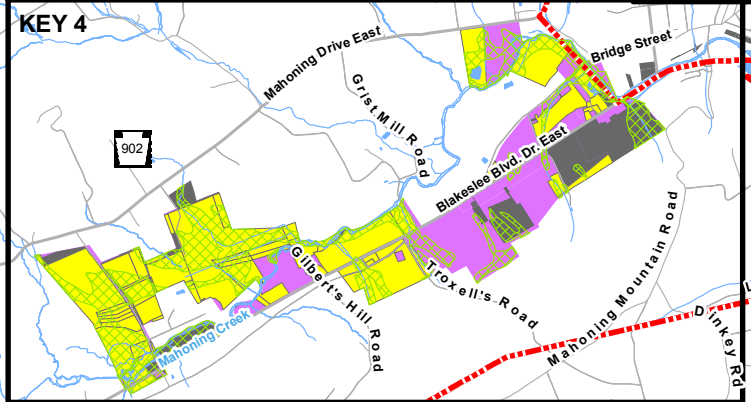
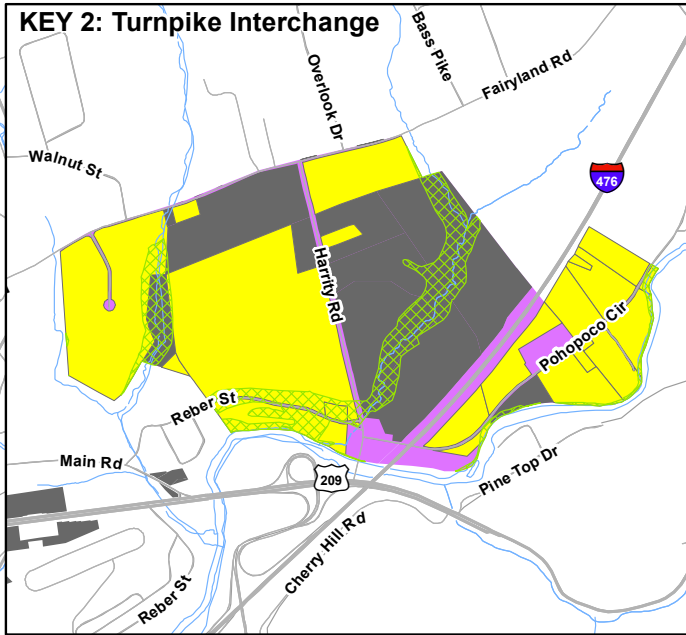
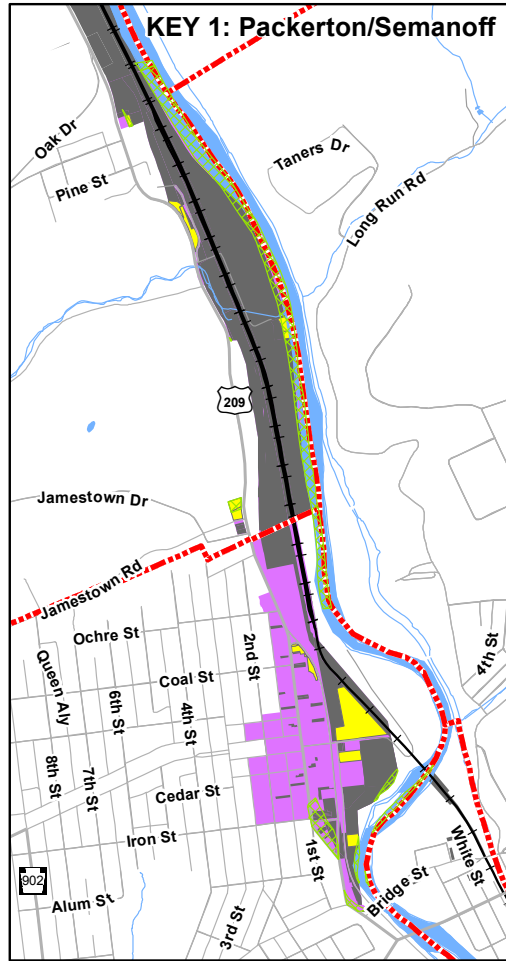
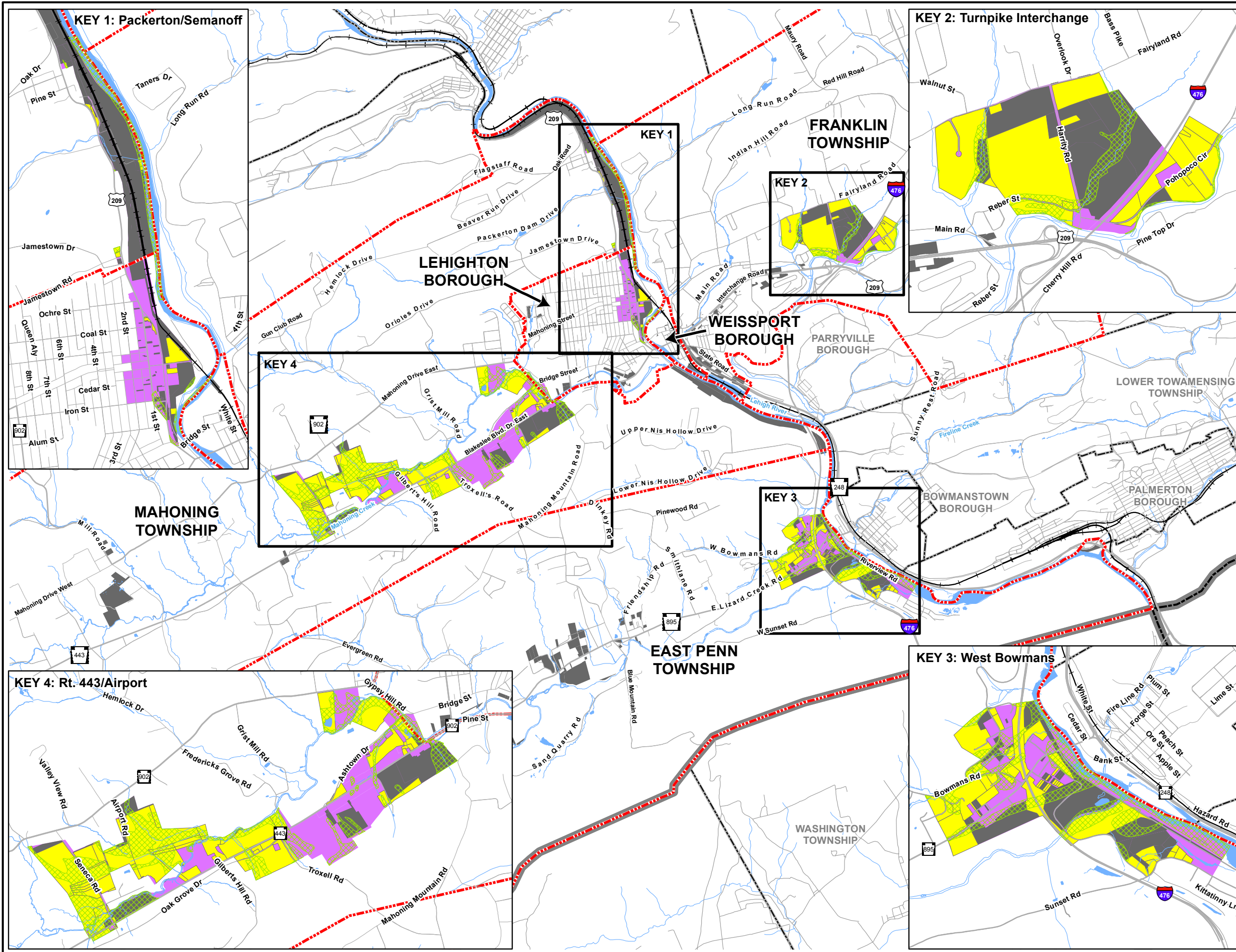
Map 4.1-2: Target Areas for Economic Development

Legend

- Commercial/Industrial/
Institutional Zoning District
- Developed Parcel
- Vacant Parcel
- Underutilized Parcel
- Primary Conservation Area
(Floodways, Wetlands, Hydric
Soils, Slopes >25%, Protected
Open Space)
-
- Municipal Boundary
- Central Carbon County
Region/Municipal
Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



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The output stemming from all airport tenants and visitors is approximately \$1.0 million, while the total full-time employment (including secondary jobs) is estimated at approximately 21 persons with a total annual payroll of approximately \$319,300.¹⁰ PennDOT's 2011-14 Transportation Improvement Program (TIP) has allocated \$393,000 for the construction of two snow removal equipment storage buildings for the airport.



Many employers rely on airports to conduct business on a daily basis. In addition, many businesses seek development opportunities on or adjacent to airport property for easy access and compatibility of land uses. Most types of industrial development are highly compatible with airport operations, and many activities actually benefit from being in close proximity to an airport.

The runway, currently at 3,000 feet in length, would need to be extended for vertical landing instrumentation or up to 5,000 feet to accommodate aircraft typically used by Fortune 500 companies.¹¹ The design for a 750 foot runway extension was originally scheduled as part of PennDOT's 2011-14 TIP, but was postponed until issues regarding adjacent properties, mitigation, and a needs analysis are resolved.¹² Its contribution to the economic development of the region could be increased if this extension occurs. However, neighboring property owners have not been supportive of the runway extension.

Certain types of development too close to an airport are not compatible with the operation of the airport and/or their potential expansion needs. In general, land uses which are noise sensitive or that lead to large congregations of people in the airport's operational envelope (e.g. – residential uses, schools) prove to be less than ideal. Incompatible land uses can threaten the long-term viability of an airport and can also result in lost economic development opportunities.

Safety is a major concern when considering the operation of an airport and relates not only to pilots and aircraft, but also to persons and property in each airport's hazard area. Act 164 of 1984 and its Airport Zoning Act were enacted to prevent the creation or establishment of airport hazards. Act 164 requires every municipality within an airport hazard zone to enact an airport zoning ordinance. The PennDOT's Bureau of Aviation has developed guidelines aimed specifically at identifying land uses and activities that are considered compatible around an airport and a model airport zoning ordinance. The 2011-14 TIP also includes funds for the mitigation of obstructions related to the airport.

Portions of Mahoning and East Penn Townships, and a small portion of Lehigh Township are within the hazard zone of Jake Arner Airport. Although East Penn Township has an airport zoning ordinance, the Bureau of Aviation currently lists this ordinance as inconsistent with Act

¹⁰ *Economic Impacts of Aviation*, Pennsylvania Statewide Airport System Plan, Pennsylvania Department of Transportation, Bureau of Aviation, data as of 1999.

¹¹ Telephone conversation with Thomas Tomczyk, Airport Planner, PennDOT Bureau of Aviation, December 10, 2010.

¹² Telephone conversation with Brian Langan, NEPA Transportation Program Manager, December 7, 2010 and Thomas Tomczyk, Airport Planner, PennDOT Bureau of Aviation, December 10, 2010.

164. Lehighon Borough and Mahoning Township currently has no airport zoning ordinances. East Penn Township is also within the airport hazard zone of the Flying M Aerodrome and the Slatington Airport in Lehigh County.

The Beltzville Airport, a private use airport located between Beltzville Lake and US Route 209 in Franklin Township, is of limited economic development benefit or potential in the region.

Pennsylvania Turnpike Interchange

North of the Mahoning Valley Interchange of the Pennsylvania Turnpike, 321 acres between Fairyland Road and the Pohopoco Creek in Franklin Township are zoned I Industrial and MS Motorist Services. Over 249 acres in this zoning district are either vacant or have additional land available for development opportunities. Given its proximity to a major transportation node, this area is a logical location for transportation dependent uses and facilities due to its highway access advantages.

The MS Motorist Services district portion of this area (i.e. – east of the Turnpike) only offers limited commercial uses: service stations, repair garages, motels, and restaurants. It is recommended that the township consider expanding the uses permitted in this district to include such uses as automobile sales, RV sales and service, camping equipment and supplies, hotels, and other similar uses to provide more incentives and opportunities for the development of this area.

West Bowmans

The West Bowmans area of East Penn Township contains over 350 acres zoned IC Industrial Commercial and VC Village Commercial, of which 164.3 acres is available for development. Both zoning districts provide a variety of uses for the type of development appropriate for the location adjacent to the Borough of Bowmanstown and the limited access highway PA Route 248.

Gnaden Huetten Memorial Hospital

As previously indicated, Gnaden Huetten Memorial Hospital campus of the Blue Mountain Health System is the 2nd largest employer in the County and the largest in the region. As a regional medical facility, it is an important asset to Lehighon Borough and the region, not only because it provides the largest number of employment opportunities and generates significant tax revenue, but also because it provides important health care services to residents of the region. As the population continues to age, it is expected that these roles will increase in importance. As stated in the 1994 Comprehensive Plan for Lehighon Borough, opportunities for expansion of the hospital and health care related land use activities should be provided consistent with neighboring residential land uses. Future expansion of hospital facilities, doctor's offices, and other support services should be guided to the north and west of the hospital.

Higher Education and Technical Training

As indicated in Appendix C – Demographics and Socioeconomic Data and Trends, the proportion of the regions' and Carbon County's population with a college degree is less than half the rate of the state and nation. At the same time, no full service four-year college or university is currently located in Carbon County. To provide improved educational opportunities convenient to area residents, the feasibility of locating a branch campus of a college or university

should be investigated and pursued to help contribute to the economic development of the region.

Given the continued need and demand for technical jobs, particularly the expansion of the communications and medical services fields, advanced technical and vocational education and training for these professions should not be overlooked. Important institutions that provide career and technical training in the area include the following:

- The Carbon Career and Technical Institute, located in Jim Thorpe and serving the school districts in Carbon County, offers both academic studies and career and technical studies designed for students entering the work force or enrolling in post-secondary education.¹³ It also provides adult education programs for area residents.
- The Pocono Counties Workforce Investment Area (WIA) is comprised of private-sector businesses, community based organizations, labor, economic development, and education representatives involved in directing employment and training opportunities to residents of the four Pocono Counties – Carbon, Monroe, Pike, and Wayne.¹⁴ Its mission is the integration of workforce and economic development to assist companies located within northeast Pennsylvania and to attract new companies to the area. The administrative office and the Carbon County office, CareerLink Carbon County, are located in Jim Thorpe.
- The PA Academy for Sciences, Arts and Advanced Technologies (a.k.a. Wall Street West Academy), created by the Wall Street West initiative, is available at the Lehigh Carbon Community College. The PA Academy was created to provide another career opportunity for academically proficient high school juniors and seniors to pursue their careers.

Continued support for these programs is critical to the creation of a diverse workforce to meet the demands of the future economic development needs of the region.

Heritage and Recreational Tourism

The region's location within the Delaware and Lehigh National Heritage Corridor and the Pocono Forest and Waters Conservation Landscape Initiative can be a valuable asset for economic development that should be taken advantage of. Since the region does not contain a concentration of major attractions (e.g. – ski resorts, beaches, national parks, etc.), unlike other areas of the state or nation, it is not expected nor suggested that it rely on tourism as the major component of its economic development strategy. However, it does contain significant resources with the Appalachian Trail/Blue Mountain, Beltzville State Park and Lake, D&L Canal and Trail, and the Lehigh River that could support expanded tourism-based businesses.



¹³ <http://www.carboncti.org>, November 23, 2010.

¹⁴ <http://www.pcwia.org>, November 23, 2010.

Although tourism-based industry ranked as the least important in the NEPA survey, an opinion echoed from comments received during the public participation process, tourism can assist in creating a diverse and stable economy in the region. A negative view of this segment of the economy could keep tourism-based businesses from being a part of the economic development of the area.

Visitors to tourism attractions and recreational facilities do bring occasional and temporary traffic congestion and sometimes create other nuisances, but they also purchase goods and services as part of their activities and can bring new economic and cultural energy to the region. The economic benefit of the exceptional local recreational resources and the opportunities that they provide should be promoted and embraced rather than ignored or minimized. Municipalities should ensure that recreational and tourism-based uses and their support facilities (e.g. – campgrounds, motels/hotels, bed & breakfasts, restaurants, convenience stores, RV sales and service, etc.) are adequately provided for in local zoning ordinances.



Principle 2 – Improve Mobility in the Region

Improving mobility means providing more transportation choices, designing functional and efficient transportation facilities that complement community character as well as accommodating traffic, and encouraging housing to be situated near work and community facilities. Central Carbon County should continue to encourage and support road improvements that relieve congestion and correct deficiencies, but should also continue to create a network of trails and sidewalks that can be used by pedestrians and cyclists. The region can make alternate transportation methods feasible and desirable by promoting paths, encouraging a mix of land uses, and by making streets pedestrian and bicycle friendly.

Background Data and Information

The transportation system within the Central Carbon County planning region is centered on the use of the automobile, with travel along major corridors between the town centers, developed areas, and recreational destinations throughout the region. Rural, generally low volume roads provide access to less densely developed residential and agricultural areas between the major corridors. Within the town centers, buildings are typically constructed close to the roadside, limiting the feasibility to widen streets to increase capacity. In this region, waterways and bridges also serve as obstacles that limit the feasibility to widen many roadways to provide additional capacity for increasing traffic volumes.

The following summary of the transportation system in the region is extracted from the *Central Carbon County Transportation Plan*, which was prepared concurrently with the Comprehensive Plan:

Strengths & Issues

Roads

Strengths

- The existing roadway network provides sufficient access throughout most of the regional planning area.
- I-476 provides residents with easy access for long-distance travel, and provides tourists with easy access to destinations within the regional planning area.
- Traffic improvements in the area are underway or pending, both through land development opportunities and through State and PA Turnpike projects.
- Streetscape projects have begun in Lehighton, and additional recommendations will be made for streetscape and corridor projects through the completion of the Lehighton Borough Downtown Revitalization study.
- Some traffic signals in the region include modern equipment, such as LEDs, emergency and/or queue pre-emption, and pedestrian push buttons.

Issues

- Traffic congestion (represented by LOS E and F) is currently experienced at intersections along U.S. Route 209 and PA Route 443, and delays will continue to increase in the future.

- Traffic congestion resulting from the lack of capacity along the McCall Bridge causes traffic diversions through Weissport, which will increase in the future. Current daily traffic volumes on this three-lane bridge are comparable to I-476, which provides four lanes, and is currently being widened to accommodate six lanes in the future.
- Traffic demands and the lack of turn lanes cause delay along the PA Route 443 corridor through Mahoning Township.
- There is no coordination between traffic signals along any corridor within the region.
- Poor access management practices along major corridors throughout the region have resulted in traffic congestion.
- The lack of multimodal facilities along area roadways, including wide shoulders, sidewalks and/or bike lanes, discourages walking and biking, and therefore, increases the number of vehicles on the road.
- Gypsy Hill Road intersects Bridge Street at an undesirable acute angle. There is also poor sight distance due to the vertical curvature along Bridge Street through the intersection.
- Several unpaved roadways exist in the region, particularly in East Penn and Mahoning Townships, which need to be constructed and maintained properly.
- There is limited accessibility for residents along West Sunset Road in East Penn Township, and Lizard Creek is an obstacle to providing alternate access.
- Flooding of Lizard Creek across PA Route 895 (Lizard Creek Road) between Germans Road and Lauchnor Road occurs regularly.

Bridges

Strengths

- Projects to replace the Harrity Road Bridge (PennDOT) and the I-476 bridges over the Lehigh River and Pohopoco Creek (PA Turnpike) are underway.
- Several bridges in the area provide pedestrian walkways.

Issues

- Based on inspections by PennDOT, the McCall Bridge is structurally deficient.
- Due to the lack of available funding, PennDOT currently plans to complete a structural rehabilitation of the McCall Bridge, although additional capacity is needed.
- Other existing bridges along important roadways, such as PA Route 443, East Penn Street, and South Ninth Street (PA Route 902), limit the ability to provide necessary capacity increasing roadway improvements.



Railroads

Strengths

- With an active rail line for freight movement in the area, the number of trucks on roadways is reduced.
- Rail transportation provides an energy efficient alternative for moving large quantities of goods.
- The Packerton Yards property provides industrial zoned land along the railroad, which is appropriate to enable utilization of the active rail line.

Issues

- The rail line causes delays regularly at the at-grade crossing on Bridge Street in Weissport, which prohibits the use of this route as an alternative crossing of the Lehigh River to alleviate delay across the McCall bridge.
- There is an absence of industrial zoned land along the railroad to provide opportunities for appropriate development to utilize the existing freight rail service.
- Railroad infrastructure is costly to maintain, and use of rail continues to decrease.

Air

Strengths

- The region benefits from having its own public airport, providing another option for the movement of goods and the ability to provide aviation services.
- The airport provides emergency support services in the region, including law enforcement and fire fighting.
- The airport provides additional recreational opportunities in the region.
- There is significant zoned industrial lane in Mahoning Township around the Jake Arner Memorial Airport.

Issues

- The size of the runway limits the type of aircraft the facility can accommodate.
- Operations at the airport will produce some level of impact to adjacent properties, including environmental and noise pollution.
- The Jake Arner Memorial Airport is located in a valley, and foggy conditions result in the need to divert aircraft to other facilities.

Public Transit

Strengths

- Public transit is provided by the Carbon County Community Transit (CCCT) through the Lehigh and Northampton Transportation Authority (LANTA), via both door-to-door and fixed-route services.
- Current fixed-route service includes major destinations in the regional planning area, such as Gnaden Huetten Memorial Hospital, Walmart, and the Carbon Plaza.

Issues

- Fixed-route service is limited to Monday through Friday operations, ending by 5:00 PM, which limits ridership.
- Fixed-route stops are limited within the region.

Bicycles

Strengths

- Travel by bicycle is environmentally friendly, resulting in no harmful emissions, reduces vehicular traffic volumes on area roadways, and improves public health.
- PennDOT’s designated “BicyclePA Route L” traverses through Franklin Township, along Harranty Road, Fairyland Road, and Maury Road, close to Beltzville State Park.

Issues

- Designated bike routes or facilities in the region are extremely limited. PennDOT’s designated “BicyclePA Route L” does not provide a demarcated lane for riders.
- The lack of paved shoulders providing an adequate and consistent width of four to eight feet for shared use along roadways in the region discourages bicycle travel.

Pedestrians

Strengths

- Walking is the most environmentally friendly form of transportation and promotes public health.
- Sidewalks within Lehigh Township provide pedestrians with a connected network for mobility and access.
- Some traffic signals within the region provided pedestrian amenities, including push buttons and crosswalks.

Issues

- Many traffic signals within the planning region do not provide pedestrian amenities, or prohibit pedestrian crossing altogether.
- Pedestrian accessibility is lacking between Bowmans Road on the north side of PA Route 895 and the recreational uses on the south side of PA Route 895 along the Lehigh River in East Penn Township.
- The Carbon County-owned bridge located in East Penn Township over Lizard Creek along Riverview Road, south of PA Route 895, currently provides a pedestrian walkway along the west side of the bridge; however, a walkway is needed along the east side where the D&L trail is located to enable pedestrians to cross the creek without the need to cross Riverview Road.
- Commercial developments in the region lack pedestrian accessibility and connectivity.

Additional background data and information on the existing transportation setting and regional and municipal traffic conditions can be found in the *Central Carbon County Regional Transportation Plan*.

Transportation Plan

The transportation plan for the Central Carbon County planning region must not only address the goals specific to transportation, but must also support the goals of all other elements of the comprehensive plan. Provision of a comprehensive, well-planned, multi-modal network is necessary to support each of the region’s guiding principles.

The following plan is extracted from the *Central Carbon County Transportation Plan*, which was prepared concurrently with the Comprehensive Plan:

- 1. Provide targeted traffic improvements to meet capacity needs and increase mobility, including the Thomas J. McCall Memorial Bridge, major corridors (including U.S. Route 209 and PA Route 443), and key intersections.***

Table 4.2-1 illustrates the recommended improvements at the key intersections based on the existing and future year 2030 traffic analyses.

- 2. Apply sound access management strategies to balance mobility and accessibility, thereby supporting smart growth land development throughout the region.***

The following illustrations provide sample applications of access management strategies in the planning region:

REDUCE & RELOCATE ACCESS – Lizard Creek Road (PA Rt. 895) & Riverview Road



Existing Condition:

Access to both the major and minor streets
Open, undefined access on the minor street
Access close to the adjacent intersection



Access Management Strategy:

Access to the minor street only (preferred)
Defined access point on the minor street
Access shifted away from the intersection

PROVIDE ACCESS BETWEEN PARCELS – PA Route 443



Existing Conditions:

Each parcel has a separate driveway(s) onto PA Route 443. No interconnection is provided between parcels, many of which have similar land uses.

Access Management Strategy:

Potential parcel interconnection locations are illustrated by the red arrows. Interconnection allows for consolidation and elimination of driveways along PA Route 443.

PROVIDE LEFT-TURN LANES – PA Route 443



Existing Condition:

PA Route 443 does not provide continuous left-turn lanes from Mall Road/Mall Lane to just west of U.S. Route 209.

Access Management Strategy:

Provide a left-turn lane throughout this section of PA Route 443, as needed for traffic operations at roadway intersections and for more efficient and safe ingress and egress from the numerous driveways.

Table 4.2-1 Recommended Improvements at Key Study Intersections

No.	Intersection	Municipality	Existing Traffic Control	Short-Term Improvements	Long-Term Improvements	Notes
1	Blakeslee Boulevard Drive (S.R. 0443) & Mill Road (S.R. 3001)	Mahoning Township	Traffic Signal	Monitor regularly and modify the traffic signal timings, as needed.	Consider providing separate left-turn lanes along PA Route 443, if needed in the future.	
2	Mahoning Drive (S.R. 0902) & Mill Road (S.R. 3001)	Mahoning Township	All-Way Stop	No capacity improvements are anticipated to be needed, but should be monitored if unexpected growth occurs in this area.		
3	Mahoning Drive (S.R. 0902) & Country Club Road (S.R. 3005)	Mahoning Township	One-Way Stop	No capacity improvements are anticipated to be needed, but should be monitored if unexpected growth or safety issues arise in this area.		
4	Mahoning Drive (S.R. 0902) & Gypsy Hill Road	Lehighon Borough	One-Way Stop	No capacity improvements are anticipated to be needed, but should be monitored if unexpected growth or safety issues arise in this area.		
5	South 9 th Street (S.R. 0902) & Mahoning Street (S.R. 3008)	Lehighon Borough	Traffic Signal	Monitor regularly and modify the traffic signal timings, as needed.	Upgrade the intersection to comply with ADA design standards, including crosswalk placement and curb ramps.	
6	Gypsy Hill Road & Bridge Street	Lehighon Borough	One-Way Stop	Install all-way stop-control based on sight distance limitations.	Realign the Gypsy Hill Road approach to intersect Bridge Street at 90 degrees, and modify the vertical geometry.	
7	Blakeslee Boulevard Drive (S.R. 0443) & Fredericks Grove Road	Mahoning Township	Traffic Signal (2010)	Monitor regularly and modify the traffic signal timings, as needed.	If additional traffic signals are installed along the PA Route 443 corridor in close proximity, signal coordination should be provided.	The recent improvements completed by Walmart provide acceptable capacity based on current projections.
8	Blakeslee Boulevard Drive (S.R. 0443) & Old Walmart/Carbon County Plaza Driveways	Mahoning Township	Traffic Signal	Optimize the traffic signal timings and install emergency pre-emption.	If additional traffic signals are installed along the PA Route 443 corridor in close proximity, signal coordination should be provided.	Lowe's Home Improvement Store is currently under construction, and plans to open in July 2011.
9	Blakeslee Boulevard Drive (S.R. 0443) & Mall Road/Mall Lane	Mahoning Township	Two-Way Stop	Without development of the nearby vacant properties with access along Mall Lane to warrant the need for further improvements, widen PA Route 443 for a center left-turn lane from Mall Lane/Mall Road to S. 9 th Street.	With development of properties along Mall Road/Mall Lane, the following improvements should be considered: <ul style="list-style-type: none"> • Provide separate PA Route 443 left- and right-turn lanes. • Install a traffic signal including: <ul style="list-style-type: none"> ○ Pedestrian push buttons and crosswalks ○ Vehicle detection for signal actuation ○ Coordination with the adjacent traffic signal(s) ○ LEDs ○ Emergency pre-emption 	Improvements at this intersection should be evaluated with any development of properties along Mall Road/Mall Lane.
10	Blakeslee Boulevard Drive (S.R. 0443) & South 9 th Street (S.R. 0902)	Lehighon Borough	Traffic Signal	Upgrade the traffic signal equipment including coordination with the Mahoning Mountain Road/East Penn Street intersection, and install LEDs and emergency pre-emption.	Provide the following additional lanes: <ul style="list-style-type: none"> • Second PA Route 443 westbound through lane • Separate S. 9th Street left-turn lane • Modify the corner radii to accommodate truck traffic 	
11	Blakeslee Boulevard Drive (S.R. 0443) & Mahoning Mountain Road (S.R. 3002)/East Penn Street	Lehighon Borough	Traffic Signal	Upgrade the traffic signal equipment including coordination with the S. 9 th Street intersection, and install LEDs and emergency pre-emption.	Provide the following additional lanes: <ul style="list-style-type: none"> • Second PA Route 443 westbound through lane • Separate PA Route 443 left-turn lanes 	

Table 4.2-1 Recommended Improvements at Key Study Intersections (Continued)

No.	Intersection	Municipality	Existing Traffic Control	Short-Term Improvements	Long-Term Improvements	Notes
12	Bridge Street (U.S. Route 209)/Bankway Street & Blakeslee Boulevard Drive (S.R. 0443)	Lehighton Borough	Traffic Signal	<p><u>Replace & Widen the McCall Bridge</u> Reconstruct the McCall Bridge to provide a five to six-lane cross section.</p> <p>Preliminarily, the following additional lanes may be needed at the intersection:</p> <ul style="list-style-type: none"> • Second westbound U.S. Route 209 through lane • Separate left-turn lane and a shared left-/right-turn lane along southbound U.S. Route 209 	<p><u>Without Replacement & Widening of the McCall Bridge</u> If the currently planned structural rehabilitation is completed as a short-term improvement, additional capacity will need to be provided.</p> <ul style="list-style-type: none"> • Construct a second bridge over the Lehigh River to the south of the McCall Bridge with a minimum three-lane cross section. • Convert the McCall Bridge to accommodate one-way eastbound traffic, with the new bridge to accommodate one-way westbound traffic, to maximize the available traffic capacity. 	<p>Replacement and widening of the McCall Bridge is key to meeting the mobility needs of the planning area. If only a structural rehabilitation is completed, other significant roadway improvements will be needed to address the traffic impacts.</p> <p>If adequate traffic capacity is not provided along U.S. Route 209 across the Lehigh River is not provided, the traffic along alternative routes will increase, particularly through Weissport Borough and across the Bridge Street bridge.</p>
13	U.S. Route 209 and Bridge Street (S.R. 2010)	Lehighton Borough	One-Way Stop	<p>With replacement and widening of the McCall Bridge, and therefore, the elimination of traffic delay along U.S. Route 209, the traffic volumes at this intersection will be alleviated and no capacity improvements will be required.</p>	<p>With construction of a second bridge over the Lehigh Creek, as described under Intersection #12 above, the traffic volumes at this intersection will be alleviate and not capacity improvements will be required.</p>	
14	U.S. Route 209 and Jamestown Drive/Center Street	Lehighton Borough	One-Way Stop	Provide a separate northbound left-turn lane along U.S. Route 209 at Center Street.		
15	U.S. Route 209/PA Route 248/Canal Street (S.R. 2015)	Franklin Township	Traffic Signal	<p><u>Replace & Widen the McCall Bridge</u> Reconstruct the McCall Bridge to provide a five to six-lane cross section.</p> <p>Preliminarily, the following additional lanes may be needed at the intersection:</p> <ul style="list-style-type: none"> • Second U.S. Route 209 through lane in each direction • Second northbound PA Route 248 left-turn lane • Separate southbound Canal Street left-turn lane • Upgrade the traffic signal equipment • Coordinate the traffic signal with the intersection of U.S. Route 209 and PA Route 443 	<p><u>Without Replacement & Widening of the McCall Bridge</u> If the currently planned structural rehabilitation is completed as a short-term improvement, additional capacity will need to be provided.</p> <ul style="list-style-type: none"> • Construct a second bridge over the Lehigh River to the south of the McCall Bridge with a minimum three-lane cross section. • Convert the McCall Bridge to accommodate one-way eastbound traffic, with the new bridge to accommodate one-way westbound traffic, to maximize the available traffic capacity. 	<p>Replacement and widening of the McCall Bridge is key to meeting the mobility needs of the planning area. If only a structural rehabilitation is completed, other significant roadway improvements will be needed to address the traffic impacts.</p> <p>If adequate traffic capacity is not provided along U.S. Route 209 across the Lehigh River is not provided, the traffic along alternative routes will increase, particularly through Weissport Borough and across the Bridge Street bridge.</p>

Table 4.2-1 Recommended Improvements at Key Study Intersections (Continued)

No.	Intersection	Municipality	Existing Traffic Control	Short-Term Improvements	Long-Term Improvements	Notes
16	Canal Street (S.R. 2015)/Fairyland Road (S.R. 2015)/Long Run Road	Franklin Township	Two-Way Stop	No capacity improvements are anticipated to be needed, but should be monitored if unexpected growth or safety issues arise in this area.		
17	U.S. Route 209 and I-476 Interchange Ramps	Franklin Township	One-Way Stop	Install a traffic signal at the intersection of U.S. Route 209 and the I-476 off-ramp left-turn movement, including coordination with the proposed U.S. Route 209/Harrity Road traffic signal, vehicle detection for actuation, LED's, and emergency pre-emption.		
18	U.S. Route 209 and Harrity Road (S.R. 2007)/I-476 Off-Ramp	Franklin Township	One-Way Stop	Installation of a traffic signal and provision of a separate southbound Harrity Road left-turn lane is currently under construction by PennDOT with replacement of the Harrity Road bridge. These traffic improvements provide adequate capacity based on the current projections.		
19	Harrity Road (S.R. 2007) & Pohopoco Drive	Franklin Township	One-Way Stop	No capacity improvements are anticipated to be needed, but should be monitored if unexpected growth occurs in this area.		
20	Lizard Creek Road (S.R. 0895) & Riverview Road	East Penn Township	One-Way Stop	Access modifications are recommended for the property on the southwest quadrant of the intersection to better define the driveways and relocate accesses as far from the intersection as possible.		

Notes:

- Installation of new traffic signals can only be completed when warranted, so it is recommended to monitor traffic volumes by completing turning movement counts at regular intervals.
- All traffic improvements projects should also include compliance with current ADA design standards.
- Traffic counts should be completed after the I-476 interchange at PA Route 903 is complete and open to traffic for approximately 1 year to understand the daily and peak hour traffic reductions at the U.S. Route 209 interchange with I-476, as well as the intersections at the McCall Bridge.

PROVIDE FRONTAGE OR SERVICE ROADS – PA Route 443



Existing Condition:

Each parcel has a separate driveway(s) onto PA Route 443.

No interconnection is provided between parcels, many of which have similar land uses.

Access Management Strategy:

Construct a service road on the north side of the properties with intersections along PA Route 443 at strategic locations.

Interconnection allows for consolidation and elimination of driveways along PA Route 443.

3. *Ensure adequate access for residents, particularly in areas where flooding is an issue.*

Alternative access is needed for residents along West Sunset Road in East Penn Township, and a crossing of Lizard Creek is necessary to provide it. Improvements should be pursued along PA Route 895 (Lizard Creek Road) to address the frequent flooding issues between Germans Road and Lauchnor Road.

4. *Enact regulations to ensure developments adhere to appropriate design standards and complete traffic improvements to mitigate their traffic impacts.*

Right-of-way and cartway widths in municipal ordinances should be adequate to accommodate future traffic volumes and the functional classification of the road. Municipalities should also consider enacting ordinances containing guidelines for the completion of traffic impact studies for new land developments in order to identify traffic impacts, and assign responsibility for mitigation improvements. Additionally, municipalities should require developers to sign agreements for the maintenance of new traffic signals, as Mahoning Township has done with Walmart for the PA Route 443 signal at Fredericks Grove Road and the new Walmart driveway.

5. *Establish a regional connected network of multi-modal facilities to encourage walking and biking, thereby increasing mobility and reducing the dependency on motor vehicles and their impact on the environment and quality of life.*

At a minimum, land development design standards should require sidewalks in new developments. As appropriate, developers should also be required to consider provision of additional facilities to promote multi-modal travel, especially in locations where the network is currently lacking. Municipalities should develop or review current roadway functional classifications within their ordinances to ensure appropriate right-of-way and cartway widths are required to accommodate multi-modal facilities.

Several techniques should be considered to provide a connected multi-modal network throughout the region along rural and town center streets. In rural areas, paved shoulders would provide for multi-modal travel, reducing conflicts between vehicles and other users (pedestrians, bicycles, etc.). Shoulders provided for multi-modal travel should be four to eight feet in width. With environmental, design, and right-of-way constraints, the provision of paved shoulders should be targeted to areas that will be the most heavily traveled, and where off-street facilities cannot be accommodated.

Bicycle lanes and shared lanes should be pursued along existing streets where modifications to the existing pavement can be accommodated or widening is feasible within key growth areas. Such techniques are most applicable along town center streets, where shoulders cannot be provided.

A connected network of sidewalks within town centers and villages, including Lehighton and Weissport Boroughs, as well as sidewalks between adjacent land developments, will provide a pedestrian-friendly environment throughout the region. With the number of bridges in this region, it is also important that these structures provide walkways to ensure a connected network.

Provision of safe crossing facilities along commercial corridors (such as U.S. Route 209 and PA Route 443) is also an important component to provide a connected multi-modal transportation network.



6. *Ensure unpaved public roadways are properly constructed and maintained.*

Particularly in East Penn and Mahoning Townships where unpaved roadways are prevalent, construction and maintenance standards should be developed. Unpaved roadways must be properly constructed and maintenance activities must be performed often, particularly during times of inclement weather (snow, rain, etc.), as the surfaces are easily degraded.

7. *Viable rail service should be maintained within the region to support the movement of goods and support development.*

Rail service should be maintained to continue service for existing facilities in the region, as well as to support future applicable development, including the Packerton Yards Business Park.

8. *Support the expansion of the Jake Arner Memorial Airport runway in a manner that will mitigate impacts to adjacent properties to the maximum extent possible.*

Expansion of the airport to accommodate additional types of aircrafts will support economic development within the region, and enhance the services provided at the facility. It is important that the expansion be completed in a manner that mitigates the impacts of concern to adjacent property owners, including noise, environmental, and safety.

9. Expand the fixed-route public transit services provided in the region provided by CCCT and run by LANTA.

As feasible and based on ridership potential, the region should work with the County to expand the fixed-route bus services to key destinations and corridors within the region, as well as the connections with transit service outside of the region. Expanded service hours should also be pursued during weekday evening and weekend time periods, which are not currently provided. With the development of any significant traffic-generating land uses, the provision of a bus stop would reduce the dependency on personal vehicles.

Principle 3 – Protect and Improve the Character and Sense of Community in the Region

Vibrant communities are attractive, walkable, affordable, and economically healthy; and meet the needs and preferences of residents. The region has a distinct history and character that defines the community’s sense of place. By identifying what makes Central Carbon County unique, the region can develop policies that foster attractiveness and economic vitality. Thriving town centers are particularly important because they serve as the economic foundation and cultural focal point for an area.

Background Data and Information

Background data and information on the existing land use patterns and housing conditions form the basis for regional planning policies and are the foundation for future goals and objectives. A detailed inventory and analysis of the land use and housing data for the region is included in Appendix D. A summary of this information follows:

Comments from Public Participation Process

The public participation process for this Plan (Planning Committee meetings, key person interviews, citizen survey, and public meetings) indicated that housing conditions in the region need to improve, particularly in the Boroughs of Lehighton and Weissport. The need to preserve historic structures and provide for the housing needs of the elderly were also noted. Flexible design standards which recognize landowners’ property rights and which allow for a combination of development options and affordable housing should be encouraged for new developments.

Summary of Housing Census Data

A detailed analysis of U.S. Census data on regional housing characteristics is included in Appendix C. In summary:

- The Boroughs of Lehighton and Weissport have experienced declining populations, while the surrounding townships have seen increases in population and housing units. If current trends continue, Franklin Township will receive roughly 50% of the new housing units and its population will be the largest in the region by 2030. Migration of residents from the denser boroughs to less dense developments in the townships results in valuable agricultural and open space lands lost to development, inefficient expansion of infrastructure and roadways, higher costs for public services and greater traffic congestion. Efforts to revitalize the boroughs as attractive and desirable places to live will be needed if this trend is to be reversed.
- The average household size has been declining nationwide and in the region, resulting in higher demands for housing and the need for smaller housing units. It is unknown whether this trend will continue, as recent evidence indicates an increase in extended families and larger households.
- Consistent with the national trend, the population of the region is aging and is expected to continue to do so into the foreseeable future as the “baby boomers” begin to retire. This

will increase the demand for services specific to the elderly population, such as medical services and housing for the elderly.

- A vast majority of workers in the region drive to work alone. Less than 20% carpool, use public transportation, walk, work at home, or use other means. New industries and businesses will need to be located convenient to Lehighton and Weissport Boroughs if alternative travel modes are to help reduce future traffic congestion.
- Lehighton and Weissport Boroughs contain significantly higher proportions of more affordable housing options, including attached and multi-family housing units and renter-occupied housing, than the surrounding townships.
- The age of the housing stock in the boroughs is also significantly older than the surrounding townships. Based on both homeowner and renter vacancy rates in 2000, which were within normal ranges, it appears that housing demand is strong and that deteriorated and dilapidated housing are not a serious problem. However, efforts to ensure that housing conditions do not deteriorate to the point of adversely affecting housing values and jeopardize attempts at neighborhood revitalization are needed.
- The number of older homes in the region is an opportunity to consider historic preservation programs as a way to improve housing conditions and make the area more attractive for economic development. Investment in improving historic buildings helps both housing conditions and the local economy, while also celebrating the history and heritage of the region.

Land Use Plan

The Land Use Plan for the region (Map 4.3-1) provides a framework for enhancing existing land uses and for managing new development by designating three planning areas: Regional Center, Development Areas, and Natural Resource Areas. These areas reflect current land use patterns and introduce growth management strategies designed to achieve the region's future land use planning goals.

Natural Resource Areas


















Natural resource areas include those features that cannot be developed based on existing laws and regulations (i.e. - floodways, slopes over 25%, wetlands, hydric soils, and protected open space) and other areas designated as desirable for protection (e.g. – Natural Area Inventory sites). These are classified as primary conservation areas and form the basis for the region's Greenway and Open Space Plan contained in *Principle 4: Conserve the Region's Natural and Cultural Resources*. Over 32% of the region is included in this category.

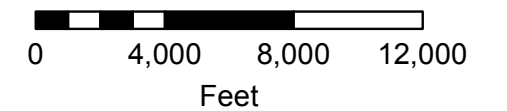
Regional Center

Lehighton Borough, with its existing land use and infrastructure, is designated as the commercial and residential center for the region. Housing densities range from four (4) dwelling units per acre and higher. Commercial uses are concentrated in the central business district, but are also scattered throughout the Borough, offering a variety of goods and services. Many structures are mixed uses with residential units above a first floor commercial use.

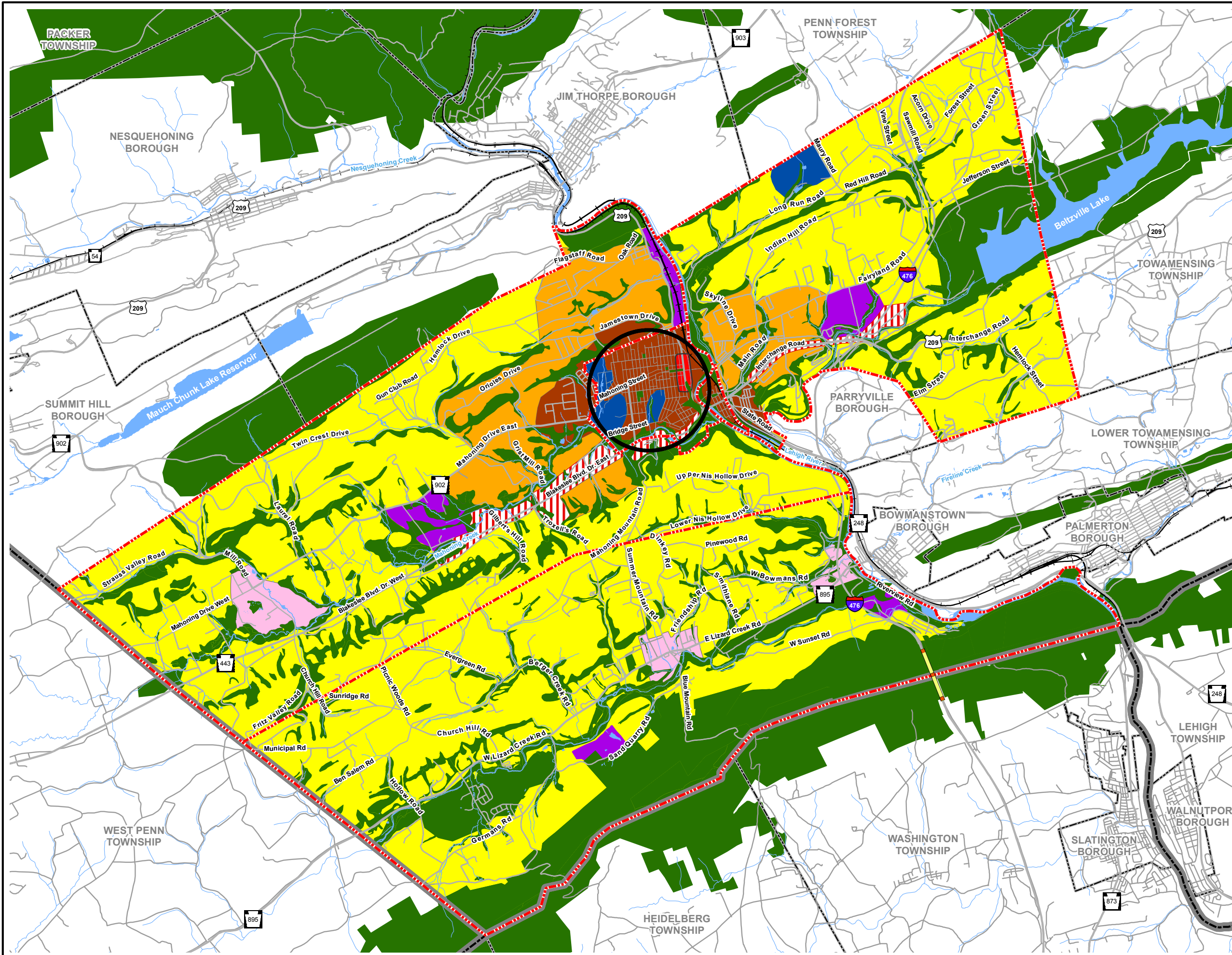
Map 4.3-1: Land Use Plan

Legend

-  Regional Center
-  Rural Residential
-  Suburban Residential
-  Urban Residential
-  Central Business District
-  Village Center
-  Highway Commercial
-  Industrial
-  Institutional/Utilities
-  Primary Conservation Area
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
-  Rail Line



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Two key initiatives will reinforce the Borough's role as the region's center and help reverse the trends of declining population and business activity: downtown revitalization and redevelopment of the Packerton Yards/Semanoff sites.

Packerton Yards/Semanoff Redevelopment

As discussed in greater detail in *Principle 1: Ensure the Economic Vitality of the Region*, the redevelopment of the Packerton Yards and Semanoff properties along US Route 209/Sgt. Stanley Hoffman Boulevard are important to the revitalization of Lehighton Borough's downtown and the overall economic development of the region. An effective redevelopment plan should include the following:

- Creation of a "town center" zoning district with a mix of uses, including residential uses as both principal uses and as uses above commercial and office uses.
- Updated and consistent floodplain regulations in Lehighton Borough and Mahoning Township.
- Retail commercial uses should be limited so as not to further contribute to the loss of businesses in Lehighton Borough's downtown.
- Establishment of area and bulk requirements that are more urban than suburban or highway commercial.
- A greater mix of general land use categories in the zoning district that allow the "free-market system" to determine the specific types of uses most appropriate for the size and location of the sites and economic conditions of the region.
- Elimination of the OS Open Space Conservation district in the Lehighton Borough Zoning Ordinance and incorporation of open space and recreation requirements into the master plan for the entire town center district. The open space and recreational uses should focus on river access, walking and biking paths, and pedestrian linkages to Lehighton's downtown.

An integrated mixed-use development on the Packerton Yards and Semanoff sites, if properly designed and maintained, will help to contribute to the economic development of the region, the revitalization of Lehighton Borough, and the quality of life for the region's residents.

Lehighton Borough Downtown Revitalization

DCED approved funding in 2009 for the preparation of a downtown revitalization plan, which would have included streetscape and corridor concept plans, redevelopment/reuse plans, and a prioritized action program, including suggested zoning and subdivision/land development ordinance amendments. However, local matching funds were never raised for the plan and the State ultimately rescinded the funds. Any future plan for the Lehighton Borough downtown should focus on the following four key aspects of a successful economic revitalization strategy similar to State-funded Elm Street and Main Street plans:

- Design (getting downtown's physical assets in top condition)

- Promotional (marketing downtown as a prime location to live, work, shop, and play)
- Economic Restructuring (enhancing already existing businesses and recruiting new ones)
- Organization (ensuring sustainable organizational resources are in place to carry out the plan)

Specific recommendations should address the following items:

- Identifying opportunity areas (underused areas and buildings) for reuse and reinvestment.
- Strengthening older commercial areas to ensure their place as business, entertainment, cultural and civic centers for the region.
- Improving historic preservation.
- Enhancing the streetscapes and facades in the downtown area via improvements and design guidelines.
- Developing an appropriate mix of uses within downtown.
- Ensuring appropriate use of parking resources.
- Improving pedestrian safety and linkages to downtown.
- Developing financial incentive packages (e.g. – Local Economic Revitalization and Tax Assistance (LERTA) and Tax Incremental Financing (TIF)) to recruit new businesses.

Residential densities in Lehighton Borough should be high (more than 4 dwelling units per acre) and include portions of Mahoning Township adjacent to the Borough. Weissport Borough is also included with Lehighton Borough in the category of Regional Center due to its housing density and its position in the center of the D&L Canal Park/Trail and the Lehigh River Water Trail.

Other Development Areas

In addition to the redevelopment of the Packerton Yards and Semanoff properties, other development areas are proposed to accommodate future growth. The residential portions of these areas can accommodate a variety of housing types that will comply with the requirements of the MPC *“to provide for the use of land within the municipality for residential housing of various dwellings types encompassing all basic forms of housing, including single-family and two-family, and a reasonable range of multifamily dwellings in various arrangements, mobiles homes and mobile home parks”*.

The non-residential land uses are based on locational considerations that provide access to the region’s transportation system and that will provide residents access to a wide range of shopping, employment, service, and other activities.

Village Center

The villages of Ashfield and West Bowmans in East Penn Township are designated as Village Centers. The Ashfield area currently contains several commercial businesses mixed within residential uses along PA Route 895/Lizard Creek Road, while West Bowmans designation as a Village Center is based on its existing housing density and relationship to Bowmanstown Borough across the Lehigh River from PA Route 895/E. Lizard Creek Road. Mill Road between PA Route 902 and PA Route 443 in Mahoning Township is also delineated as a Village Center. The Villages of New Mahoning and Normal Square in this area of the township have a mix of residential, commercial, and industrial uses. Although primarily residential in nature, neighborhood commercial and light industrial uses are appropriate in Village Centers.

Commercial Areas

To help minimize commercial sprawl which contributes to the decline of Lehighon Borough's central business district and hinders efforts at downtown revitalization, this Plan proposes to limit commercial uses to areas where they currently exist. It also recommends the reduction or elimination of some highway commercial zoning districts, particularly those west of the new Walmart in Mahoning Township and along Rt. 895 in East Penn Township, which currently have no or very limited commercial activity. The development of these outlying areas with poor transportation access and the need to extend public water and sewer service only contributes to strip development, traffic congestion, and the further decline of existing commercial areas.

Highway commercial areas are proposed along PA Route 209/Interchange Road in Franklin Township and PA Route 443/Blakeslee Boulevard Drive East in Mahoning Township and constitute 550 acres in the region.

Industrial Uses

To encourage economic development and job creation in addition to redevelopment of the Packerton/Semanoff properties, transportation oriented industrial uses are proposed in areas of the Turnpike interchange and the Carbon County (Jake Arner) Memorial Airport. Industrial uses in the area of the Turnpike interchange would be highway oriented, while those associated with the airport would be aviation related. Light industrial uses such as assembly, warehousing, and distribution are envisioned as the primary industrial uses in these areas, since heavy industrial uses are becoming a smaller part of the national and local economy.

This category also includes the existing sand quarry in East Penn Township. A total of 618 acres in the region is designated for industrial uses.

Institutional and Utility Uses

The areas of Lehighon Borough in which the Lehighon Area School District facilities and the Gnadon Huetten Memorial Hospital are located are designated for institutional use. To allow for the possible future expansion of the Gnadon Huetten Memorial Hospital, which is the region's largest employer, it is proposed that areas north and west of the facility be designated to accommodate future growth of the hospital and related services. This category contains 372 acres.

Suburban Residential Areas

The Suburban Residential areas provide for residential development in the form of single-family homes designed under various options available through the *Growing Greener: Conservation by Design* concept. The lot sizes and permitted densities are in the medium range (1 to 4 dwelling units per acre) based on existing densities, environmental features, and the availability of public or community water and wastewater facilities. This area can also accommodate small-scale commercial uses such as gasoline stations, convenience stores, etc. and institutional uses such as places of worship, schools, and community parks. A total of 2,782 acres or 6.9% of the region is designated Suburban Residential.

Rural Residential Areas

The remainder of the region is designated as Rural Residential areas since they are located outside of public water and sewer service areas and not within close proximity to other

community services and facilities. Uses in the Rural Residential areas should be of the types and densities that will not require the extension of public water and sewer services. Residential development is intended to be low density (1 acre and larger) which relies on individual or community on-lot water and wastewater systems. This area can also accommodate small-scale commercial uses, institutional uses, and private recreation.

Future development should take place in a manner that preserves agricultural soils and allows for continued agricultural practices. This can be accomplished through the *Growing Greener: Conservation by Design* concept and Transfer of Development Rights (TDR) program (see *Principle 4: Conserve the Region's Natural and Cultural Resources*). The Rural Residential category comprises 21,470 acres 52.8% of the region.

Housing Plan

The Future Land Use Plan will meet the housing needs of current and future residents and allow for a variety of housing types and densities for households of all income levels. A dwelling unit capacity analysis was completed to determine the capacity for future growth based on existing vacant/undeveloped and agricultural land in the designated residential areas. Up to 2,116 new housing units are anticipated in the region by 2030 based on the projections contained in Appendix C – *Demographic and Socioeconomic Data and Trends*. With 16,078 acres available for development in the residential areas, 18,113 new dwelling units could be accommodated based on the density ranges proposed for the region.

Residential densities of more than four (4) dwelling units per acre are proposed in the Boroughs of Lehighton and Weissport as the regional center. This allows a variety of housing types to meet the needs of all income levels including single-family detached, single-family attached (e.g. – twins, duplexes, townhomes), and multi-family (e.g. – condominiums, apartments). This diversity of affordable housing should be promoted and encouraged as a way to attract young families and professionals into these areas.

The boroughs are also the focus areas for efforts to maintain housing conditions and to rehabilitate deteriorating housing. The age of the housing stock in the boroughs is significantly older than the surrounding townships. Efforts to ensure that housing conditions do not deteriorate to the point of adversely affecting housing values and jeopardize attempts at neighborhood revitalization are needed. This includes enforcement of housing and property maintenance codes to minimize the deterioration of housing and property values. The boroughs should also be the focus of historic site inventories to identify properties or districts eligible for historic designation and preservation.



Single-family units (detached and attached), including mobile and manufactured homes, are envisioned as the primary housing types in the Rural and Suburban Residential areas on lots between 10,000 square feet and one (1) acre or larger.

Although the age of the housing stock in the boroughs is significantly older than the surrounding townships, deteriorated and dilapidated housing have not been observed as a widespread problem. According to responses from the public participation process of this Plan, housing

conditions do need to be improved, including the preservation of historic structures. Both Lehighton and Weissport Boroughs have adopted property maintenance codes, enforcement of which is critical to ensure that housing conditions do not deteriorate to the point of adversely affecting housing values and attempts at neighborhood revitalization.

Consistent with the national trend, the population of the region is aging and is expected to continue to do so into the foreseeable future as the “baby boomers” begin to retire in 2011. This will result in increased demand for age-restricted housing or retirement communities. These may include a mix of housing types, including detached and attached dwellings units, apartments, as well as convalescent facilities and other services for the elderly. The development of these types of communities should be well-designed, properly located, and adequately integrated into the existing transportation system and community services network. Given the reduced mobility of older residents, these developments should be located close to shopping opportunities, health care and medical support services. Since the possibility exists that these communities may eventually be converted to residency by younger families with children, density bonuses should not be permitted nor should development standards for streets, sidewalks, parking, or parks and recreation be reduced.

Municipalities should also consider zoning provisions specific to other elderly housing options such as:

- Assisted Living Facility – Residences for the elderly that provide rooms, meals, personal care, and supervision of self-administered medication. They may also provide other services such as recreational activities, financial services, and transportation. These facilities are sometimes combined with other types of housing, such as congregate apartment housing for the elderly and residential health care facilities.
- Community Residential Home or Group Home – A dwelling unit providing a living environment for unrelated residents who operate as the functional equivalent of a family, including such supervision and care by supportive staff as may be necessary to meet the physical, emotional, and social needs of the elderly residents. These homes may also be designed and operated to serve physically disabled or handicapped persons, mentally ill persons, or children.
- Congregate Residences – Apartments and other dwelling types with communal dining facilities and services, such as housekeeping, organized social and recreational activities, transportation services, laundry, and other support services for residents and designed to provide a relatively independent lifestyle.
- Continuing Care Retirement Community (CCRC) or Life Care Community – An age-restricted development that provides a continuum of accommodations and care, from independent living to long-term bed or nursing care.
- In-Law Suites/Apartments – An accessory dwelling unit in a single-family dwelling with separate housekeeping facilities.
- Elder Cottages – A temporary housing unit containing complete housekeeping facilities installed as an accessory building to a single-family dwelling and which is specifically

designed to be occupied by one or two elderly persons related to the occupants of the single-family home.

Implementation of Land Use Plan and Housing Plan

Zoning Ordinance and Map Amendments

Zoning ordinances, the major implementation tool of a comprehensive plan, should reflect the reality of development as it currently exists and the intent for development in the future. The existing zoning ordinances in the region should be evaluated upon adoption of this Plan to examine any discrepancies between existing development and zoning regulations and to bring the ordinances into general consistency with the Plan.

The following major revisions to the existing zoning ordinances in the region should be considered:

- Adoption of Conservation Zoning as detailed in *Principle 4 – Conserve the Region’s Natural and Cultural Resources*.
- Development of transfer of development rights (TDR) programs which allow and encourage the transfer of development rights from the more rural and natural resource sensitive areas of the region to the Boroughs of Lehigh and Weissport.
- Mixed use development with open space requirements for the Packerton Yards and Semanoff properties in Lehigh Borough and Mahoning Township.
- Reduction in the amount of commercial and industrial zoning by eliminating the more remote, sprawl-type districts.
- Density bonuses as an incentive for the preservation of historic structures.
- Accommodations for a variety of elderly housing options.
- Provisions to allow the conversion of residential buildings in the boroughs to commercial uses.
- Expansion of the hospital and related industry district around Gnadentown Memorial Hospital to accommodate future growth.
- Design standards to protect the Kittatinny Ridge and the Appalachian National Scenic Trail.
- Adopt an airport ordinance for Mahoning Township and amend the existing ordinance in East Penn Township to be consistent with Act 164.

Subdivision and Land Development Regulations

Coupled with the adoption of Conservation Zoning, the region’s subdivision and land development ordinances should be revised to incorporate Conservation Subdivision Design

based on *Growing Greener: Conservation by Design*. This technique can help preserve important natural resources and create a network of open space.

Sustainable Development

Future development of the region should be “sustainable”, which means conserving, preserving, and maintaining natural and historic resources; minimizing traffic impacts and demands on public services; and ensuring capacity and integrity of water supplies and wastewater disposal. Buildings and structures that incorporate sustainability principles and reflect the existing character of the region are also important. Sustainable development can enhance natural resources, the area’s history, and the region’s quality of life.

New development in the region should meet the following principles of sustainable growth:

- Efficient use of land and water
- Efficient use of infrastructure and services
- Incorporation of mixed uses
- Provision of transportation options
- Human scale design
- Quality design
- Energy efficient design

Efficient use of land, such as compact development through *Growing Greener: Conservation by Design*, helps preserve land and natural resources. Using infrastructure and services efficiently involves using and improving existing services, while minimizing the need for additional water and wastewater facilities, schools, and other township services. The extension of existing development areas is more effective and efficient than establishing new development in a leap frog pattern.

Mixed-use development incorporates residential, commercial, office, and institutional uses into a single development; while traditional development provides a single use on a single parcel. Mixed-use developments lessen impacts by promoting walking, reducing the need to drive, and minimizing the need for excess parking spaces.

Transportation options focus on alternatives to the automobile and involve low-impact forms of mobility. Minimizing the use of the automobile by encouraging development that is accessible to transit, bicycle, and pedestrian mobility will increase the use of these modes, lessen the need for roadway improvements, and improve air quality.

Human-scale development is more sensitive to existing development and community character, including neighborhoods and historic resources. Buildings of appropriate size, with windows, porches, and other architectural elements all provide a scale that is attractive. Quality design reflects local architecture and is built of materials that reflect local construction such as stone and wood. Energy efficient design not only involves compact and mixed use development, but also architectural features and building materials that reduce utility and maintenance costs.

Community Character

Recommendations to enhance the character of the area, improve the region’s image, and protect its heritage are important components of the Plan.

Lehighton Borough

Revitalization of Lehighton Borough is critical to improving the character and image of the region and reversing the loss of residents and businesses to outlying areas. The Packerton Yards and Semanoff properties must be central elements of a successful revitalization effort. If properly designed, constructed, and maintained, this redevelopment could attract new residents and jobs, increase tax revenues, and support other local businesses. Coupled with streetscape improvements such as street trees, benches, street lights, decorative crosswalks and sidewalks, and trash receptacles along First Street and Sgt. Stanley Hoffman Boulevard, the downtown area would be a more attractive and inviting place to live, shop, and enjoy entertainment.

Gateways

Gateways provide a transition from one area to another and reinforce a local identity. A number of communities build gateway structures along the road entering their communities, including signage, plantings, and fountains. These features are often sponsored, funded, and maintained by local community service organizations, the business community, and local garden clubs.

In addition to the standard PennDOT installed “entering...” signs, there is a “Welcome to Lehighton” sign where US Route 209 splits entering the Borough from Jim Thorpe and eastbound on PA Route 443 at the Route 209 intersection west of the McCall Bridge. The welcome sign at the Rt. 209 and 443 intersection contains an additional downtown directional arrow and information pertaining to the founding of the Borough. However, both of these signs are relatively small and obscured by or lost amongst numerous other signs and traffic control devices at busy intersections. The sign at Rt. 209 and 443 should be moved further west along Rt. 443 to allow motorists advanced notice of the turning movement needed to access the downtown. A new and larger digital gateway sign with landscaping is being constructed in the island of the Rt. 209 u-turn.



It is also suggested that a gateway sign with plantings be considered entering the Borough from the south at Rt. 209 and Bridge Street or at the Rt. 209 split, similar to the new sign entering from Jim Thorpe.

The visual introduction to Lehighton Borough along Sgt. Stanley Hoffman Boulevard/US Route 209 is also in need of improvements and enhancements. The rear of lots and buildings fronting on S. First Street could be beautified with landscaping, building upgrades and painting, signage, and murals.

Given the gateway nature of Blue Mountain and the Lehigh Tunnel of the Pennsylvania Turnpike, it is suggested that one of the billboards that line the road as you exit the tunnel northbound be used to inform motorists that they are entering Carbon County. It should include some of the important and attractive features of the area (e.g. – Beltzville Lake, Lehigh River Water Trail, D&L Trail, D&L Canal Park, Jim Thorpe, etc.) as a way to promote the area. Possible funding sources could include the County Chamber of Commerce or the County Office of Economic Development.

Corridors

The region contains three types of corridors with distinct identities created by features that define the corridor such as landforms, water resources, and land uses. The corridor types that should be enhanced are heritage and recreational corridors such as Blue Mountain and the Lehigh River, greenway corridors such as Mahoning Mountain/Hill, and commercial corridors such as Interchange Road/US Route 209 and PA Route 443. These corridors perform various functions, but are all worthy of improving or preserving.



Heritage and Recreational Corridors

Clearly the most prominent feature in the region is Blue Mountain, which rises over 1,200 feet along the southern boundary of East Penn Township. Home to the Appalachian Trail, State Game Lands, Lehigh Gap Wildlife Refuge, and numerous unique natural areas, this corridor should be preserved as an important eco-recreational corridor.

The region's history as a transportation center along the Lehigh River is valuable to preserve for future generations and to serve as a foundation for recreational activities and historic interpretation. Efforts to improve and expand the use of the Lehigh River Water Trail, D&L Trail, and D&L Canal Park should continue as important recreational assets and contributors to the economic development of the region. Integration of the Lehigh River into the redevelopment of the Packerton Yards and Semanoff properties will be critical to the success of these projects and the revitalization of Lehighon Borough.

Linking Beltzville State Park to the Lehigh River and the D&L Trail through a trail along Pohopoco Creek would allow inter-connections between these features and create an enhanced network of active recreational uses.

Greenway Corridors

Corridors that function as ecological connections and provide passive recreational uses include Lizard Creek, Mahoning Creek, Mahoning Mountain/Hill, and Mauch Chunk Ridge/Bear Mountain. Preservation of these corridors would provide links between important natural and environmental features, water resources, and wildlife habitats.

Commercial Corridors

The Interchange Road/US Route 209 and PA Route 443 corridors contain the majority of the highway oriented commercial activity in the region. As such, the various commercial signs, unscreened parking areas, utility poles, and numerous curb cuts can detract from the corridors' appearance, safety, and efficiency.

Attractive road corridors can be visually unifying elements of a community. Interchange Road/US Route 209 functions as a gateway for those exiting at the Mahoning Interchange of the Pennsylvania Turnpike and is therefore the first impression that visitors have of the region.

Coordinated signage could end the pattern of installing signs that compete with one another for attention, could improve aesthetics, and would reduce confusion for motorists. The appearance of the corridors can also be changed by landscaping and access improvements. The coordination and control of driveway access points through access management would enhance safety. A streetscape plan that addresses landscaping, signage, and access management should be prepared to provide a common design and link these elements together in a cohesive manner.

Principle 4 – Conserve the Region’s Natural Features and Cultural Resources

Successful communities identify the areas that are most important to protect, such as streams, wetlands, forests, farmland, important natural areas, or historic structures; and guide growth into areas better suited for development. Natural landscapes and historic structures help define an area and, therefore, conservation of these resources contributes to the region’s character and economic health.

Background Data and Information

The natural and cultural resources of the Central Carbon County region are critical in how land uses and the economy have evolved in the area. These resources also provide the framework for preserving valuable community amenities.

The Pennsylvania Municipalities Planning Code (MPC) requires that comprehensive plans address the protection of natural and historic resources to the extent not pre-empted by federal or state law. This includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, floodplains, unique natural areas, and historic sites. A detailed inventory and analysis of the natural features and historic resources in the region are included in Appendix D.

It is obvious from the inventory of natural features and historic resources that the region has an impressive array of assets that can be used to help provide much needed downtown revitalization and economic development, particularly along the Lehigh River. This multi-use resource should serve as the backbone for recreation and economic development planning in the region, linking it to the other resources to create an inter-connected and inter-related network of greenways and recreational facilities.

Natural and Cultural Resources Protection Plan

Policies, Planning, and Practices to Conserve and Protect Natural Resources

Although the most effective way to preserve and protect critical natural features is through fee simple acquisition by a public agency, limited funds and the amount of resources in need of protection make this option cost prohibited and impractical. Fortunately, other options exist, such as conservation easements, covenants, and deed restrictions, although these may also have limited applications and effect. The most effective and practical option is to craft a zoning plan that limits encroachment into important resource protection areas and increases development opportunities in areas better suited for infrastructure expansion.

By overlaying maps of various resources, the areas with the largest range of resource types and the most critical individual resource locations can be identified and appropriate “overlay districts” established that protect floodplains, stream buffers, steep slopes, wetlands, agricultural lands, and woodlands; as well as scenic and cultural resources.

As an example, zoning ordinances may restrict the disturbance of critical natural features from intrusion by development as follows:

Resource	Minimum Protection Standard	Maximum Intrusion Permitted
Floodplains		
Floodways	100%	0%
Flood Fringe	50%	50%
Hydric (Wetland) Soils	100%	0%
Lake or Pond Shorelines	80%	20%
Ridgeline Setback	50 ft.	25%
Stream Buffers		
Special Protection (HQ & EV) Streams	150 ft.	(1)
All Others	100 ft.	(1)
Streams, Watercourses, Wetlands, Lakes & Ponds	100%(2)	0%
Steep Slopes		
15 to 25%	70%	30%
Over 25%	85%	15%
Wetland Buffers	50 ft.	20%
Woodlands	80%	20%
Environmental Sensitive Woodlands	90%	10%
1. Ten (10) foot clearing may be permitted for path or trail access.		
2. Except that roads and utilities may cross these features where design approval is obtained from the municipality and PaDEP and where no other reasonable access is available.		

Natural features such as floodplains, streams and waterways, steep slopes, and wetlands are protected through various federal and state rules and regulations due to their health, safety, and welfare benefits.

Ridgeline setback standards are included here since significant scenic ridges are located in the region which municipalities may want to protect (e.g. – Blue Mountain/Kittatinny Ridge, Mahoning Mountain/Hill). The dramatic, wooded hillsides and ridgelines of Blue Mountain and others in the region help define the community, are critical for protecting local water quality, and in the case of Blue Mountain, provides a national attraction as host to the Appalachian National Scenic Trail. East Penn Township should also consider amending its zoning ordinance to regulate wind turbines on this ridge, particularly given the impacts of these structures on wildlife and threatened and endangered species along this important migration route. Sample zoning provisions to protect the Kittatinny Ridge and the Appalachian Trail can be found in the 2009 *A Conservation Guidebook for Communities Along the Appalachian National Scenic Trail*.



Healthy streamside and wetland buffers naturally filter pollutants and excess nutrients like phosphorus and nitrogen from stormwater runoff. Buffers also help control stormwater flows, help prevent streambank erosion and flood damage, lower water temperatures, and generally improve water quality and stream habitats.

Streamside buffers or riparian corridor standards can be effective in preserving vegetation along streams. Pennsylvania recently established streamside buffers of 150 feet on each side of exceptional value and high quality watersheds, while the PA Buffer 100 initiative is proposing 100 foot buffers along all other streams.

Zones can be established, each with different standards based on proximity to the stream. For example, Zone One, the closest to the waterway, can be used to permit only nature preserves and passive recreation; while Zone Two can permit not only nature preserves and passive recreation, but also existing agricultural uses and required yard areas. Agricultural uses and development adjacent to streams should be required to implement “best management practices” (BMPs) for soil erosion control and stormwater management. Among the uses recommended to be prohibited in stream buffer areas are the clear cutting of trees, storage of hazardous materials, and paved surfaces such as roads and parking lots.

The Stream ReLeaf Program was developed in 1998 by DEP and other partners as a guide to enhancing stream corridors and water quality by restoring and maintaining riparian buffers. The Conservation Reserve Enhancement Program (CREP) was initiated in 2000 to provide property owners the funds and tools to create riparian buffers, wetlands, wildlife habitats, grass filter strips, native grass stands, and more. It is a voluntary conservation program which rewards farmers and landowners for installing conservation practices and offers up to 100% cost share reimbursement for installation, annual rental payments, and cash incentives.

Wetland buffers act the same way as streamside buffers and help protect the value and quality of the actual wetlands.

Tree replacement regulations can be established through a basic standard and for more environmentally sensitive areas. Zoning ordinances can require that trees be replaced when removal exceeds a certain amount or percentage. More stringent standards can be applied to environmental sensitive woodlands (e.g. – Stone Mountain Woods, excessively steep slopes). Subdivision and land development regulations can also contain tree protection standards which protect trees during construction.

At a minimum, municipal subdivision and land development regulations should adequately address soil erosion and sedimentation controls and stormwater management standards by requiring grading plans, protecting natural vegetation and woodlands, minimizing soil disturbance, establishing best management practices (BMPs), and ensuring that erosion and sedimentation control facilities are maintained. Stormwater management standards should include requirements to control both water quantity and quality.

Future Historic Preservation Needs

Given the number of potentially historic structures in the region, it is suggested that a historic site survey be conducted by the member municipalities or a county-wide survey by Carbon County to evaluate these resources to determine their historic or architectural importance and potential eligibility as individual or district candidates for the National Register. The survey should also identify other historically eligible properties (i.e. – greater than 50



years old) to create a comprehensive list of potentially historic sites.

Although it is not suggested at this time that any municipality go as far as to create a Historical Architectural Review Board (HARB) to review and approve any changes or alterations to the facades of historic buildings, it is recommended that municipalities consider zoning provisions which provide economic incentives for property owners to maintain and improve their historic structures (e.g. – conversion to multi-family units, commercial uses, accessory dwelling units, bed and breakfast, density bonus). Historic structures are often large and outdated in terms of current building and housing codes; and are therefore costly to rehabilitate and maintain. Allowing different uses or bonuses from those allowed by base zoning may make preservation economically feasible and attractive for property owners. It is also recommended that zoning provisions be adopted to establish a review process for the demolition of historic structures, including penalties for “demolition by neglect”.

Future Natural Resource Protection and Conservation Needs

In addition to maintaining the protection of natural features and historic resources through zoning ordinances and subdivision and land development regulations, the townships in the region should consider the following initiatives:

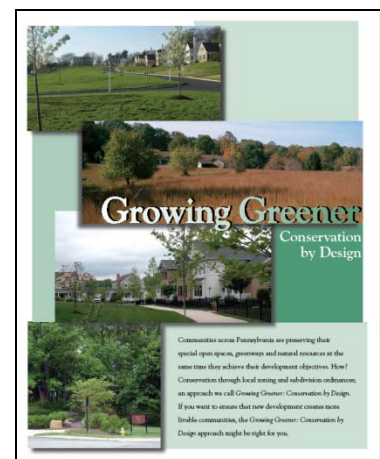
Growing Greener: Conservation by Design¹⁵

Growing Greener: Conservation by Design is a state-wide program, originally developed by the Natural Lands Trust, that helps encourage new development while protecting an inter-connected system of important natural features and local open space. Important benefits to this approach include:

- No controversial or legally vulnerable “down zoning” or “takings” of property
- Permanent protection of at least half of each tract of land
- Creation of open space and recreation networks
- Less costly than buying land or acquiring
- Economic growth in the community can continue

Instead of the standard “cookie-cutter” subdivision design, development is planned and designed so that at least half of the buildable land is set aside as open space. Without controversial down zoning, the same number of homes can be build in a less land-consumptive manner, allowing the balance of the property to be permanently protected and added to an interconnected network of community green spaces. This “density-neutral” concept provides a fair and equitable way to balance conservation and development objectives.

The first step is the preparation of a composite *Potential Conservation Lands Map*. Such a map adopted as policy is vitally important to any community interested in conserving a network of open space. The map serves as the tool which guides decisions regarding which land to protect in order for the network to eventually take form and inter-



¹⁵<http://www.natlands.org>, July 9, 2010.

connect. Two categories of resource area are identified: *Primary Conservation Areas* comprise only the most severely constrained lands, where development is typically restricted under current codes and laws, such as wetlands, floodplains, slopes exceeding 25%, and existing protected land; *Secondary Conservation Areas* include all other locally noteworthy or significance features of the natural or cultural landscape, such as mature woodlands, wildlife habitats, important natural areas, steep slopes 15-25%, prime farmland, groundwater recharge areas, greenways and trails, river and stream corridors, historic sites and buildings, and scenic resources. These resources also serve as the first step in developing the Future Land Use Map for the region (see Principle 3 - Protect and Improve the Character and Sense of Community in the Region) by identifying areas to be set aside from development.

The techniques which can best implement the community-wide *Potential Conservation Lands Map* are Conservation Zoning and Conservation Subdivision Design.

Conservation Zoning

Compared to conventional zoning, Conservation Zoning expands the range of development options available to landowners and developers. It also helps eliminate “cookie cutter” communities that consume the entire landscape with individual building lots, streets, and other infrastructure. Conservation Zoning is similar to lot averaging and cluster development; allowing the same number of dwellings, but on smaller, more clustered lots and preserving important natural and cultural resources more effectively.

By encouraging subdivisions that permanently protect at least 50% of the land, communities can break the cycle of new developments with little more than wall-to-wall house lots and streets. Protected open spaces can provide neighborhood amenities in the form of recreation, as well as a range of natural functions such as stormwater management and wildlife habitat. Municipal regulations should provide incentives to design developments with preservation of important resources in mind, with substantial density disincentives for developers who do not conserve any significant percentage of land.

Following this approach, a municipality would first base the number of units permitted (density) in each residential zoning district according to their existing conventional zoning densities. The following design options would then be made available to the landowner or developer, replacing the conventional zoning design:



- **Option 1 – Density-Neutral**

Full density only if at least 50% of the buildable land is maintained as common open space.





- **Option 2 – Age-Restricted Community**

A 25% density bonus for the development of an age-restricted community preserving at least 60% of the buildable land as common open space.

- **Option 3 – Estate Lots**

A 50% density reduction, with lot sizes between 4 and 5 acres. No common open space would be required, but at least 50% of the tract would be placed under a conservation easement.



- **Option 4 – Country Properties**

A 70% density reduction, with lot sizes of 10 acres. No common open space would be required, but at least 50% of the tract would be placed under a conservation easement.



- **Option 5 – Hamlet or Village**

Double density with 70% of the tract in common open space.

Two or more of these options could be combined on a single large property. Absent from this menu of choices is the conventional full-density subdivision providing no un-fragmented open space. It is not included as an option under this approach because that kind of development causes the largest loss of resource land and poses the greatest obstacle to conservation efforts.

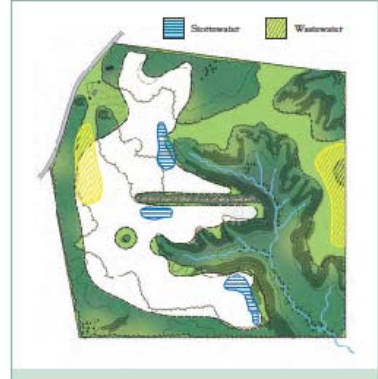


Conservation Subdivision Design

Conservation Subdivision Design preserves half or more of the buildable land area within a residential development as permanent open space, either as common open space or through private conservation easements. To identify the land to be preserved, the community-wide *Potential Conservation Lands Map* is used as a template for the layout and design of conservation areas within new subdivisions. With proper planning, these developments can help create an inter-connected network of open space throughout the entire region.

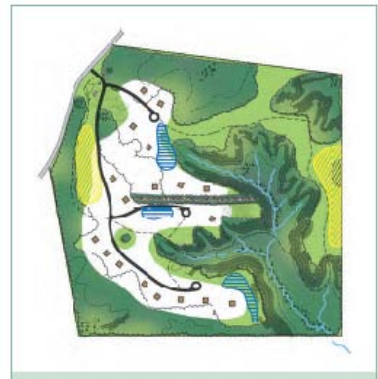
Conservation Subdivision Design involves a four-step process which is effective in laying out new developments where all the significant natural and cultural features have been preserved.

- Step One** consists of identifying the land that should be permanently protected. The developer incorporates areas pre-identified on the *Potential Conservation Lands Map* and then performs a detailed site analysis in order to precisely locate features to be conserved. The developer first identifies all the constrained lands (wet, floodprone, excessively steep, existing protected open space), called *Primary Conservation Areas*. He then identifies *Secondary Conservation Areas* which comprise noteworthy features of the property that are typically unprotected under current regulation: moderately steep slopes, mature woodlands, greenways and trails, stream corridors, prime farmland, hedgerows, specimen trees, wildlife habitats, important or unique natural areas, historic sites and structures, scenic resources, etc. Soils best suited for sewage disposal and stormwater management facilities are also identified during this step. After “greenlining” the features to be saved, the remaining part of the property becomes the *Potential Development Area*.



- Step Two** involves locating sites for individual houses within the *Potential Development Area* so that their views of the open space are maximized. The number of houses is a function of the density permitted within the zoning district and the design option by the developer as part of the previous Conservation Zoning approach.

- Step Three** simply involves connecting the house sites with streets and a trail system.



- Step Four** consists of drawing in the lot lines.

This approach reverses the sequence of steps taken in laying out conventional subdivisions, where the street system is the first feature to be designed, followed by lot lines dividing every square foot of ground into houselots. Although cluster developments are an improvement from conventional subdivisions in that common open space is created, the *Growing Greener* conservation approach differs from the kind of clustering that most communities have adopted over the years in the following ways:

- Higher percentage and quality of open space
- Open space pre-determined to form community-wide conservation network
- Eliminates the standard practice of full-density with no open space

To be effective, a municipality’s zoning and subdivision ordinances must contain provisions that make conservation design an attractive option to conventional subdivisions. For example, regulations must be drafted so they are not unnecessarily complicated or time-consuming. It also requires support of informed landowners and developers having sufficient comfort with the concept and its economic feasibility, as well as an understanding that it may require additional planning considerations in dealing with issues such as ownership and management of conservation lands and sewage treatment.

Subdivision and land development regulations should provide a process by which an applicant makes a careful analysis of on-site resources, prepares a resource conservation plan, and uses that plan as important input to the site development plan for buildings, lots, and streets. A municipality should also strongly encourage sketch plan submissions for conservation designs as a benefit to the municipality and the applicant.

Transfer of Development Rights (TDR)

Transfer of Development Rights (TDR) programs allow a landowner in one area (the sending zone) to transfer their development rights and sell them to a landowner in another location (the receiving zone), thus reducing the allowable density on the property in the sending zone and increasing the density on the receiving property . Sending zones are designated by local governments where lower densities are preferred, while receiving zones are selected where infrastructure and services are already in place or planned.

TDR programs can help preserve agricultural and open space areas by allowing landowners to be compensated for restrictions on the development value of their properties, while transferring the development rights to areas targeted for higher densities and economic development. They can help direct development to the most appropriate locations and use the market to compensate landowners for lost property values.

Although a successful TDR program is challenging to create and complex to administer, the municipalities in the region should consider adopting a regional program in which development rights can be transferred from the townships to the Boroughs of Lehighton and Weissport. If successful, this tool can contribute to the revitalization of these urban areas, while preserving open space and reducing suburban sprawl in the surrounding townships.

Water Resource Management

To address the future water needs of the region and to plan for the avoidance and mitigation of potential local impacts from depletion of and contamination of the existing water supply, the following considerations are recommended:

- Consider the development of a well ordinance covering basic well construction to protect residents from improperly constructed wells. This would typically apply to new construction and the replacement of any existing wells.
- Review the options for the area-wide management of individual on-lot sewage systems and new small community wastewater systems.

Although the region appears to have an adequate supply of high quality groundwater at the present time, these minimal methods will help ensure that this supply is protected and remains available for the future.

Potential Conservation Lands Map

Potential Conservation Lands serve as the foundation for deciding which areas should be set aside from development as a first step in developing the Future Land Use Map for the region (see Principle 3 - Protect and Improve the Character and Sense of Community in the Region). They are also used to identify and prioritize areas to be protected through the recommended *Growing Greener: Conservation by Design* and TDR program initiatives previously discussed.

Primary Conservation Areas (i.e. – floodways, wetlands, steep slopes over 25%, Natural Area Inventory sites, and existing protected open spaces) are concentrated along the Lehigh River, Lizard Creek, Mahoning Creek, and Pohopoco Creek (i.e. – Beltzville State Park) and along the slopes of Blue Mountain, Mauch Chunk Ridge and Mahoning Mountain/Hill (Map 4.4-1). Other protected open space includes the Kunkle conservation easements in Franklin Township and the various parks throughout the region. There are 12,725.2 acres or 31.4% of the region in *Primary Conservation Areas*.

Secondary Conservation Areas include flood fringe areas, 15-25% slopes, woodlands, Appalachian National Scenic Trail corridor, prime and statewide important farmland soils, National Register listed and eligible historic resources, and the Blue Mountain ridgeline. These areas comprise a substantial amount of the remaining region. There are 24,284.3 acres or 60% of the region in *Secondary Conservation Areas*.

Greenways and Open Space Plan

The important natural features and historic resources in the area are also used as the basis for the proposed Greenway and Open Space Plan for the region (Map 4.4-2). Greenways are linear corridors of public and private land, not necessarily open to public access, that serve as the linkages between specifically identified natural resource-based or manmade features.¹⁶ They can be either land or water based and serve a variety of functions and benefits including recreation, transportation, community revitalization, economic development, natural resource conservation, environmental protection, wildlife habitat and migration, and education. Corridors often follow old railways, canals, ridge tops, rivers and stream valleys.

Two (2) different types of greenway corridors are recommended in the region based on the function and purpose of each: Recreational Greenway Corridors and Ecological Greenway

¹⁶ *Pennsylvania’s Greenways: An Action Plan for Creating Connections*, Pennsylvania Greenways Partnership Commission and Greenways Partnership Advisory Committee, June 2001.

Corridors. These corridors link or inter-connect various Greenway Nodes or destination points to form a linear network of open space and recreational uses.

Recreational Greenway Corridors are designated along three (3) areas which currently provide recreational activities and which additional activities are proposed to expand or complete the system and contribute to the economic development of the region:





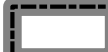



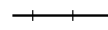
- Appalachian Trail Corridor – Encompasses a portion of the 2,178 mile long Appalachian National Scenic Trail which stretches from Maine to Georgia. Regionally, it would connect with the Schuylkill County Blue Mountain Ridge Greenway and the adjacent Lehigh County Blue Mountain/Kittatinny Ridge Greenway, including the local greenways of Jordan Creek and Slate Heritage Trail/Trout Creek in Lehigh County. This corridor intersects with the Lehigh River Water Trail and D&L Trail at the Lehigh Gap. It includes State Game Lands No. 217, Bake Oven Knob, and Bears Rocks. Recreational planning in this corridor should focus on continued protection of the Appalachian National Scenic Trail, including implementation of Act 24 of 2008 and the Appalachian Trail Zoning Implementation Task Force’s toolkit *A Conservation Guidebook for Communities Along the Appalachian National Scenic Trail*, conservation easements, and public land acquisition.
- Beltzville State Park/Pohopoco Creek Corridor – Connects Beltzville State Park with the Lehigh River via the Pohopoco Creek stream corridor. A multi-use trail is proposed within the corridor to provide public access from the trail system in Beltzville State Park to the Lehigh River and the D&L Trail. A trail feasibility study should be prepared to determine the best route for this trail and a strategy for its construction.
- Lehigh River Corridor – Encompasses the Lehigh River Water Trail and D&L Trail within the 165 mile long Delaware and Lehigh National and State Heritage Corridor. Destination points in the region would include Lehighton Borough at the Packerton Rail yard site, Weissport Borough at the D&L Trail/Lehigh Canal Park trailhead, East Penn Township’s Riverview Park, Lehigh Gap Wildlife Refuge, and various boat ramps and access points along the river. Outside the region, the corridor connects to Jim Thorpe, the Lehigh Gap Nature Center and the Lehigh River Greenway in Lehigh County, and points beyond. Future recreational planning in this corridor would include increased financial support to the Lehigh Canal and Recreation Commission to complete construction of the D&L Trail and for continued maintenance, and the incorporation of the Lehigh River and D&L Trail as the focal point to the redevelopment of the Packerton Rail yard site.

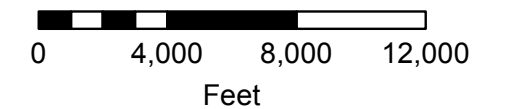


In addition to the Appalachian National Scenic Trail, Lehigh River Water Trail, D&L Trail, and the proposed Pohopoco Trail, the Greenway and Open Space Plan also includes PennDOT’s Bicycle Route L through Franklin Township.

Map 4.4-1: Potential Conservation Lands

Legend

- 
 Primary Conservation Area (Wetland, Floodway, Protected Open Space, Hydric Soil, Excessively Steep Slope, Natural Area Inventory Site)
- 
 Secondary Conservation Area (Flood Fringe, Woodland, Appalachian Trail, Prime & Statewide Important Farmland, Moderate Steep Slope)
- 
 Municipal Boundary
- 
 Central Carbon County Region/Municipal Boundary
- 
 County Boundary
- 
 Surface Water
- 
 Road
- 
 Lehigh Tunnel
- 
 Rail Line






















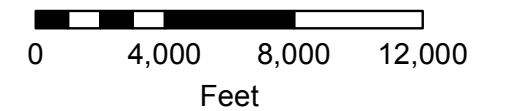
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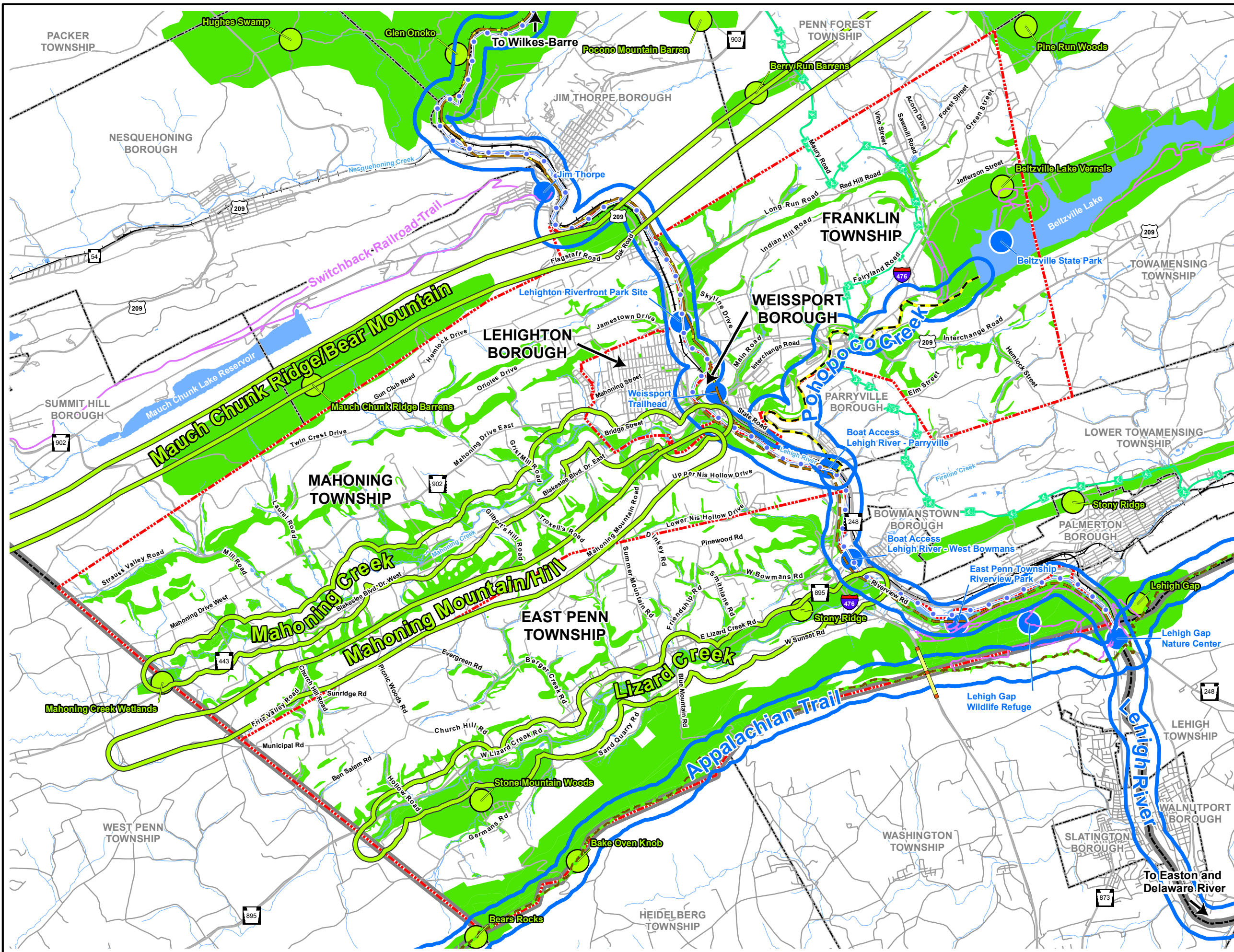
Map 4.4-2: Greenways & Open Space Plan

Legend

-  Greenway Corridors
-  Ecological
-  Recreational
-  Ecological
-  Primary Conservation Area
- Trails**
-  Appalachian Trail
-  Existing D&L Trail
-  Proposed D&L Trail
-  Lehigh River Water Trail
-  Other Trail
-  Bicycle PA Route L
-  Proposed Pohopoco Trail
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
-  Rail Line



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Ecological Greenway Corridors are proposed along four (4) important natural resource areas in the region and are intended for conservation, environmental protection, and wildlife preservation. These corridors correspond to the Primary Conservation Areas on Map 4.4-1:

- Lizard Creek Corridor – Encompasses the Lizard Creek stream corridor, including the Exceptional Value tributary along Hollow Road, and the Stone Mountain Woods and Stony Ridge Natural Areas Inventory sites.
- Mahoning Creek Corridor – Includes the Mahoning Creek stream corridor and the Mahoning Creek wetlands Natural Area Inventory site.
- Mahoning Mountain/Hill Corridor – Encompasses the steep slopes and woodlands along this topographic feature.
- Mauch Chunk Ridge/Bear Mountain Corridor – Located primarily outside the region, it includes the portions of Franklin and Mahoning Townships within Mauch Chunk Ridge, Bear Mountain, and the Natural Areas Inventory sites of Mauch Chunk Ridge Barrens and Pine Run Woods.

Resource and land protection efforts within these corridors should focus on floodplain and wetlands regulation, streamside and ridgeline buffers, conservation easements, and conservation zoning and subdivision design.

Principle 5 – Build and Maintain a Livable Community with Good Services and Facilities

Adequate community services and facilities such as police and fire protection, schools, libraries, and amenities like parks are important community assets that should be provided and maintained to improve the quality of life in the region.

Background Data and Information

Community facilities and services are often what attract new residents to a community. Community facilities are those buildings, structures, and lands that contain programs and activities that essential to municipal government operations and/or provide necessary services to residents of the region. Some community facilities and services are provided by municipalities and government agencies, while others are provided by non-profit organizations or private entities.

The delivery of community services depends on the needs of the population, the philosophy of municipal officials, financial resources available, and the extent of regional cooperation. Except for road maintenance (which is covered under a separate chapter), all community facilities and services in the region were rated “adequate” for meeting the needs of area residents in the citizen survey (see Chapter 2). Services rated the most adequate were trash removal, electric service, and ambulance services.

Financing for community facilities and services can be funded through taxes, donations, and/or fees; thereby tailoring activities and expenditures to specific needs and available resources. Fire protection and libraries received the most votes in the citizen survey for increased funding.

A joint or regional approach to providing such facilities and services allows several municipalities to share in the cost of these facilities and services, particularly when the costs to provide adequate and efficient services are too high for a single municipality. Services receiving the most votes for regional consideration in the citizen survey included police protection, recycling, parks and recreation, and road maintenance/snow removal.

A detailed inventory and analysis of the community facilities and services in the region are included in Appendix D.

Community Facilities and Utilities Plan

Based on the analysis of the background data and information in Appendix D, the only service in the region in need of significant upgrades is the public water service provided by the Lehighon Water Authority. It is currently operating at or near its maximum capacity, needs to replace a substantial amount of its aging water lines, and has insufficient capital improvement funds.

Planning for Future Public Water Needs

Regardless of the need to meet future water demands, the need to replace the failing components of the existing water distribution system is inescapable. The focus of this effort has been to replace those main distribution lines that have been compromised through mineral deposits. The estimated cost of water line replacement, however, could range from \$15,000,000 to \$30,000,000. With 4,000 customers and assuming a 30 year loan at 4%, this would add \$200 to \$400 per customer per year.

The provision of additional capacity to meet future water needs is not the lack of available water, but the limited storage and treatment capacity of the current system. Demand on the system ranges up to 1,000,000 gpd, equal to the storage capacity of its three reservoirs. With the newer intake on the Lehigh River, the Authority has an additional 1,600,000 gpd of raw water available, but the treatment plant is unable to adequately treat this water except during periods of reduced suspended solids (i.e. – during low flow or drought conditions). With a future demand of an additional 85,000 to 240,000 gpd, the cost of improvements to adequately treat this raw water to meet future demand would be approximately \$1,000,000 if no new transmission lines are required. This cost is typically born eventually by the new water customers through tapping fees; however, the difficulty with providing for this future growth is the timing. Until the growth actually occurs, the existing users of the system are forced to cover the costs of all improvements.

Water Plan: Options for Meeting Current and Future Needs

To address the future public water needs of the region, the following options are available:

Additional Debt

With the existing water rate structure and debt service of the Lehigh Water Authority, adding debt to replace failing water lines will place an additional burden on the customers. The annual rates could reach \$1,000 per home with the additional debt payments.

Sale of System

The sale of water systems is a common practice in Pennsylvania. PUC regulated water companies are the most common candidates for purchasing other water companies, but water authorities can also purchase the systems of other water authorities. Purchase agreements are often based on a price per customer in the range of \$1,000 to \$5,000 per customer. These acquisitions are typically made by a larger authority or PUC regulated company already operating in the area, with the purchase providing improved efficiencies in the consolidated operations and through the use of existing storage and treatment facilities in the larger system. Opportunities for the sale of the Lehigh Water Authority system may be limited since there are no nearby larger systems and the improvements needed for the distribution system will still need to be made and the costs of those improvements passed onto the customers.

One of the most valuable assets of the system is the land protecting the water sources. The need for the land has been diminished by the Pennsylvania Turnpike traversing it, which significantly compromises the security of the area from possible spills. Also, since DEP has required treatment of the water regardless of the source protection provided by the land ownership, it also has limited value to the system. At a minimum, consideration should be given to the sale of development rights to the approximately 5,000 acre property. Even at \$5,000 per acre, the sale of the development rights could net \$25,000,000.

Forest Legacy Easement Program

The Forest Legacy Program is a partnership between states and the U.S.D.A. Forest Service to identify and help conserve environmentally important forests from conversion to nonforest uses. The main tool for protecting these important forests is conservation easements or the acquisition of all or partial interests in forest lands. The program encourages protection of working forests that in fact provide public benefits as well as forest resources to meet the needs of the local

community and the nation. Proceeds from the sale of a conservation easement on the Lehighon Water Authority lands could be used to make improvements to the water system.

Consolidation with other systems

There are five community water systems in the region, all of which are smaller than the Lehighon Water Authority system. Efficiencies can improve with the consolidation of such systems, but the extent of these efficiencies is dependent on the ability of interconnecting supplies and consolidation of administrative functions such as billing. The potential for interconnections between the Lehighon Water Authority system and these community systems, except where they already exist, are limited and the need for improvements to the distribution system still remain.

It is therefore recommended that the region provide a forum for the discussion of the options for improvements to the existing water supply infrastructure to include:

- Possible changes to the rate structure to a conservation based system
- The consolidation with other water systems in the region
- The sale of assets such as the development rights on Authority owned land
- Securing additional grants for water line replacement through such funding sources as: PennVEST, DCED's H2O PA program, USDA, and HUD's Community Development Block Grant program.

Other Community Facilities and Utilities

The region's other community facilities and utilities generally appear adequate to meet the area's future needs and demands. These include emergency services, municipal administration, police protection, public sewage capacity, schools, and utilities. A summary of these services and any specific recommendations follows:

- Revenues from the Borough-owned Lehighon Power and Light Company provide an alternative revenue source for the Borough, which helps to maintain a low tax rate.
- The maintenance of local roads was rated as "inadequate" by a majority of the respondents to the citizen survey. The number of road department employees and road equipment needs will need to be evaluated to determine how the level of service can be improved, including the increased usage of shared equipment.
- Police protection should be further evaluated to determine local needs and whether a regional police force would be cost effective and provide adequate services.
- Although the Central Carbon Municipal Authority's sewage treatment plant currently has sufficient capacity to meet future needs in the region as a whole, infiltration problems from the Lehighon Borough portion of the system contribute to peak flows during storm events which need to be addressed.
- Any new community sewage systems should be either spray or drip irrigation systems due to their environmental benefits compared to the typical "package" plant.

- Efforts should be made to increase the recycling rates in the region to reach the State goal of 25% of the waste generated, including education and promotional materials.
- Since watershed boundaries cross municipal boundaries, Lehighton Borough and the three (3) townships in the region should consider developing a regional Municipal Separate Storm Sewer System (MS4) Permit Program. The current deadline for implementing the program is March 9, 2011.
- The region and its member municipalities should actively participate and contribute to the preparation of an Act 37 regional emergency medical services plan in coordination with the Eastern EMS Council to evaluate ambulance service in the region. The regionalization of the existing BLS units under one organization should be considered.
- Although a small portion of the region contains an unprotected fire protection rating, mutual aid agreements appear to provide adequate fire protection for the area at the current time. Continued monitoring of this service will be necessary, however, as the population increases and to ensure that municipal funding contributions are sufficient to maintain the level of service.
- Municipalities in the region should assist the Lehighton Area Memorial Library, through their funding contributions, in meeting the minimum State standards for the number of items in its collection.
- No overcrowding is projected to occur in the Lehighton Area School District, except in the elementary schools starting with the 2015-16 school year. Since the expected difference between enrollment and the capacity of the 4 elementary schools will be relatively small, the need for building expansions to accommodate this overcrowding is not anticipated.
- Since the proportion of the region's and Carbon County's population with a college degree are significantly lower than the state and national average and no full service four-year college or university is currently located in the County, the feasibility of locating a branch campus of a nearby university in the County should be investigated and pursued.



Park, Recreation, Greenway, and Open Space Plan

The Central Carbon County Park, Recreation, Greenway, and Open Space Plan contains the following recommendations:

Parkland and Recreation Facilities

- Rehabilitate the following existing park areas and recreation facilities to the extent possible, addressing safety concerns as a first priority:
 - Ashfield Playground (East Penn Township)
 - Baer Memorial Park (Lehighton Borough)
 - D&L Trailhead (Weissport Borough)

- Franklin Road/Bunker Hill Field (Franklin Township)
- Franklin Street Playground (Weissport Borough)
- Jacob Weiss Park (Lehighon Borough)
- Lehighon Community Grove (Lehighon Borough)
- Marvin Gardens Park (East Penn Township)
- Phifer Ice Dam Park (Franklin Township)
- Riverview Park (East Penn Township)
- Ronald Christman Field (School District leased to Franklin Township)
- Sixth Street Baseball Field (Lehighon Borough)
- Skyline Park (Lehighon Borough)
- Weissport Community Park (Weissport Borough)
- The following recommendations are for general park improvements:
 - Provide play equipment areas that meet the safety and age-segregation criteria of the Consumer Product Safety Commission (CPSC) Guidelines for Public Playground Safety.
 - Provide pathways in each park for recreation purposes and to meet the requirements of the American with Disabilities Act (ADA) to improve facility access for persons with disabilities.
 - Make the park areas more comfortable and convenient to use by adding benches near play equipment and other activity areas, landscaping to provide shade, trash receptacles, drinking fountains and bike racks.
- Acquire, within the next 20 years, an additional 106 to 131 total acres region-wide of municipality-owned and managed parkland to serve current and future local needs.
- During the next 10 years move toward the 20-year goal by completing acquisition of:
 - A new community park site of at least 30 to 50 acres. This community park will serve the entire Central Carbon County region and be designed primarily with athletic fields to meet current needs.
 - Neighborhood parkland where the proposed site will serve a 1,500 to 2,000 person population within a one-half mile radius that is not currently served with park facilities.
 - Property adjacent to existing municipal parks to expand the size of the parks to accommodate development of additional facilities or enhancement of existing facilities.
- Develop Mahoning Township Park.
- Encourage the County to require development of recreation facilities, to include a scenic buffer and trail along the Lehigh River and access from within the site to the river, as an integral part of the future redevelopment of the 68-acre Packerton rail yard site.
- Consider the addition of a dog park, which is a fenced enclosed area that permits dogs to interact off leash, at one of the region's park areas.

- Develop new facilities within existing parks for self-directed recreation opportunities such as fishing, in-line skating and mountain biking.
- Consider the addition of a skate park at a municipal park area.
- Provide soccer fields at existing park areas where space is available and development is compatible with the site and surrounding neighborhood.
- Add walking and biking paths around the perimeter of existing park areas.
- Expand the number of river access areas for fishing, handicapped fishing, boats, canoes, kayaks and rafts.
- Add interpretive signage to park and trail areas where appropriate.
- Consider the addition of picnic pavilions and picnic areas at municipal park areas.
- Make the park areas more comfortable and convenient to use by adding benches near play equipment and other activity areas, landscaping to provide shade, trash receptacles, drinking fountains, and bike racks.

Open Space, Greenways, and Trails (see Map 4.4.2 in Principle 4 – Conserve the Region’s Natural Features and Cultural Resources)

- Link the Parks, Recreation, Greenway and Open Space Plan to the other planning efforts and resources being undertaken in the region, to help provide much needed downtown revitalization and economic development, particularly along the Lehigh River.
- Adopt Official Maps to reserve parcels targeted for park acquisition or open space preservation.
- Amend municipal zoning and subdivision/land development ordinances to incorporate *Growing Greener: Conservation by Design* open space preservation provisions.
- Develop Recreational Greenway Corridors along three areas which currently provide recreational activities and where additional activities are proposed:
 - Appalachian Trail Corridor
 - Beltzville State Park/Pohopoco Creek Corridor
 - Lehigh River Corridor
- Focus the preservation of open space along four important natural resource areas as Ecological Greenway Corridors:
 - Lizard Creek Corridor
 - Mahoning Creek Corridor
 - Mahoning Mountain/Hill Corridor
 - Mauch Chunk Ridge/Bear Mountain Corridor

- Focus resource and land protection efforts within the Recreational Greenway Corridors and Ecological Greenway Corridors on floodplain and wetlands regulation, streamside and ridgeline buffers, conservation easements, and conservation subdivision design.
- Continue improvements to work with the Delaware & Lehigh National Heritage Corridor to improve and expand the D&L Trail and other park and recreation opportunities in the region.

Recreation Programs

- Continue to provide facilities for youth sports organizations and other community recreation program providers.
- Advertise youth sports programs and other community group sponsored recreation programs in municipal and school district newsletters and on websites.
- Pull the region's municipalities and outdoor recreation agencies together to plan a few family-oriented outdoor recreation special events.
- Have each municipal parks and recreation board or committee plan at least one program activity each year at municipal park areas.
- Develop a fee-based summer day camp to serve the region's children.
- Identify available indoor recreation facilities to accommodate recreational use by adults for programs such as volleyball and basketball.
- Work with the school district to include academically relevant visits to the Lehigh Canal Park, Lehigh Gap Nature Center, and Carbon County Environmental Education Center into its curriculum for environmental education and local history.
- Adopt a recreation program planning philosophy for the region's municipalities that is aimed at family recreation opportunities.
- Promote D&L National Heritage Corridor programs.

Administration and Management

- Form a regional committee to meet community parks and recreational needs by working cooperatively.
- Consider whether to pursue the adoption of an intergovernmental agreement of cooperation to create a regional parks and recreation commission.
- Request a meeting with the Beltzville State Park manager to discuss issues of interest to both the Central Carbon County municipalities and the State Park.
- Plan, design and implement a region-wide, economical park signage system.
- Work cooperatively with the school district to promote park improvements and maintenance needs as school graduation projects.
- Solicit civic clubs, neighborhood groups, service organizations and local businesses who are interested in adopting a park.

- Ask the major park users to support the parks by contributing funds and volunteer help.
- Establish a new organization or partner with another nonprofit organization that can form a Central Carbon County chapter, to raise funds to support park area and trail development.

Maintenance

- Adopt a regional set of rules and regulations for the municipal park areas.
- Install standard park rules and regulations signs to better inform the public and allow consistent police enforcement.
- Install play equipment use signs.
- Establish a joint standardized safety inspection schedule and checklists.
- Conduct routine safety inspections, document safety issues and correct them as appropriate.
- Establish joint minimum standards of care for all public park areas and recreation facilities owned or operated by the municipalities.
- Develop a joint year-round schedule of routine maintenance duties that must be performed to achieve the minimum standards of care.
- Work cooperatively to identify how to share and/or jointly purchase maintenance equipment among municipalities, school district, and other potential partners such as youth sports organizations.
- Work cooperatively to identify how to maintain the region's park areas and recreation facilities.

Finances

- Increase the level of funding for parks and recreation in each municipality annually.
- Expand the municipalities' investment of capital budget funds for park and trail acquisition and development, recreation facility improvements, and open space protection.
- Apply for grants to assist with funding the costs of park acquisition, recreation facility development, and staffing needs.
- Develop a fee schedule for park facility rentals for the entire region.
- Jointly prepare a gift catalog of needed park and trail improvements throughout the region to use to solicit support from individuals and businesses.
- Update the mandatory dedication ordinances of each municipality to increase the fee-in-lieu-of dollar amount and land dedication acreage amount. Standardize the fee-in-lieu-of dollar amount for the region's municipalities if possible.
- Discuss with the County using a portion of the hotel tax to assist municipalities with park and trail acquisition, development and maintenance.

Public Relations and Communications

- Feature a park area, outdoor recreation opportunity, or special event in each edition of the school district newsletter.
- Publish a comprehensive guide to the region’s parks and recreation system.
- Include information on park areas, recreation facilities, and recreation programs in each issue of municipal newsletters.
- Approach major employers and the school district to post website links to the outdoor recreational areas in the Central Carbon County region for their employees, students, families and the general public.
- Include detailed information and photos on each municipality’s website about the park areas and recreation facilities available.
- Establish links from all websites of the municipalities and school district to each other.
- Establish links to the D&L National and State Heritage Corridor website from each municipality and the school district website.
- Work with the Carbon County Chamber of Commerce to include a section on its website for outdoor recreation.
- Partner with the school district to have students create a website for Central Carbon County parks and recreation as a graduation project.
- Promote the outdoor recreation special events throughout the region jointly through municipal websites.
- Convene a meeting with representatives of area sportsmen’s clubs, outfitters, guides and boat vendors to identify what can be done to promote the region’s river recreation opportunities.

Chapter 5 – Action Plan

Implementation Strategy

The primary purpose of this Plan is to provide the municipalities in the region with direction for the future. The detailed list of planning goals and objectives in *Chapter 3: Goals, Objectives and Priority Issues* provides the overall framework for achieving the various goals established by the Plan. However, due to the sheer number and range of possible implementation items contained in this chapter and the limited resources (i.e. – financial, manpower, and time) available to accomplish them, it is necessary to narrow the list down to a more manageable level. To provide the region with more focus and therefore a better chance at successfully implementing this Plan, only two (2) implementation strategies and action items for each of the five (5) guiding principles and regional issues have been identified to help address the major issues and priorities in the region.

The time frame assigned to accomplish each goal is identified as either short- or long-range. Short-range efforts are priorities and therefore should be initiated soon after plan adoption and completed within 5 years. Long-range action items are scheduled to be implemented within 5 to 10 years, corresponding to the MPC requirement that comprehensive plans be reviewed at least every 10 years. Groundwork laid by short-range efforts must take place before many of the long-range action items can be implemented. Many principles and their implementation are complementary and inter-related, with the policy involved in each principle supporting that of another principle.

Community Goal

Manage development so as to protect and improve the community character; preserve the natural environment and farmland; improve mobility; provide adequate municipal services and public facilities efficiently and cost effectively; and improve the economic and social well-being of the community.

Principle 1. Ensure the Economic Vitality of the Region

To improve the region's economic vitality, the area needs businesses and industry that provide jobs and tax revenue to support public services and enhance the quality of life. Good land use planning can direct non-residential development to areas where it makes sense and is integrated into the community.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Support revitalization of Lehighton Borough's downtown as the cultural, entertainment, and retail hub for residents of the region.	Prepare a Downtown Revitalization Plan	Short-Term	DCED
Encourage the development of the Packerton Yards and Semanoff sites as mixed-use developments which take advantage of the recreational and economic development potential of the Lehigh River waterfront.	Creation of a "town center" district in the zoning ordinances of Lehighton Borough and Mahoning Township with a mix of uses, including residential uses as both principal uses and as uses above commercial and office uses.	Long-Term	DCNR
	A greater mix of general land use categories that allow the "free-market system" to determine the most appropriate uses based on the size and location of the sites and economic conditions of the region.		
	Updated and consistent floodplain regulations in Lehighton Borough and Mahoning Township.		
	Establishment of area and size requirements for commercial uses that are more urban than suburban or highway commercial.		
	Elimination of the OS Open Space Conservation district in Lehighton Borough and incorporation of open space and recreation requirements into the master plan for the entire town center district.		

Principle 2. Improve Mobility in the Region

Improving mobility means providing more transportation choices, designing functional and efficient transportation facilities that complement community character as well as accommodating traffic, and encouraging housing to be situated near work and community facilities. Central Carbon County should continue to encourage and support road improvements that relieve congestion and correct deficiencies, but should also continue to create a network of trails and sidewalks that can be used by pedestrians and cyclists. The region can make alternate transportation methods feasible and desirable by promoting paths, encouraging a mix of land uses, and by making streets pedestrian and bicycle friendly.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Encourage and support safety, operational, and capacity improvements along the PA 443 corridor.	Adopt access management standards for new and existing development along the PA 443 corridor.	Short-Term	Private Developers PennDOT
Encourage and support the replacement of the McCall Bridge and improvements to the US Route 209 and PA Route 443 intersection.	Continue to lobby NEPA, PennDOT, and area legislators for funds to replace the McCall Bridge and improve the intersection.	Long-Term	PennDOT

Principle 3. Protect and Improve the Character and Sense of Community in the Central Carbon County Region

Vibrant communities are attractive, walkable, affordable, and economically healthy; and meet the needs and preferences of residents. The region has a distinct history and character that defines the community’s sense of place. By identifying what makes Central Carbon County unique, the region can develop policies that foster attractiveness and economic vitality. Thriving town centers are particularly important because they serve as the foundation and focal point for an area.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Adopt appropriate zoning and subdivision regulations to encourage new development that create a network of open space and a sense of community.	Adopt Conservation Zoning and Conservation Subdivision Design based on the <i>Growing Greener: Conservation by Design</i> concept.	Short-Term	DCNR Local Municipalities
Encourage the revitalization efforts of the Boroughs of Lehighton and Weissport to ensure their place as the urban hub of the region.	Development of transfer of development rights (TDR) programs which allow and encourage the transfer of development rights from the more rural and natural resource sensitive areas of the region to the Boroughs of Lehighton and Weissport.	Long-Term	DCNR Local Municipalities

Principle 4. Conserve the Region’s Natural and Cultural Resources

Successful communities identify the areas that are most important to protect, such as streams, forests, farmland, scenic views, or historic structures, and guide growth into areas better suited for development. Natural landscapes and historic structures help define an area and, therefore, conservation of these resources contributes to the region’s character and economic health.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Adopt land use and zoning regulations which are consistent with state and federal regulations for the protection of natural resources.	Adopt Conservation Zoning and Conservation Subdivision Design based on the <i>Growing Greener: Conservation by Design</i> concept.	Short-Term	DCNR Local Municipalities
Identify potential historic resources and investigate the potential eligibility of historic districts in the region.	Prepare a historic site survey to evaluate potential historic resources to determine their historic or architectural importance and potential eligibility as individual or district candidates for the National Register.	Long-Term	PHMC

Principle 5. Build and Maintain a Livable Community with Good Services and Facilities

Adequate community services and facilities such as police and fire protection, schools, libraries, and amenities like parks are important community assets that should be provided and maintained to improve the quality of life in the region.

Objectives	Recommendation Actions	Priority	Primary Funding Source
Create a safe, convenient, and attractive pedestrian walkway/trail system that interconnects residential, stream corridors, parks and open space, and downtown business areas.	Complete construction of the D&L Trail through the region.	Short-Term	Lehigh Canal & Recreation Commission, Local Municipalities
Provide public water service with sufficient capacity to meet future needs of the region, sufficient treatment to supply safe drinking water to the region's residents, and reasonable rates to encourage economic development.	Explore options to address the fact that the Lehigh Water Authority is currently operating at or near its maximum capacity, needs to replace a substantial amount of its aging water lines, and has insufficient capital improvement funds.	Long-Term	User Fees; PennVEST, DCED, USDA, CDBG Programs; Sale of System; Forest Legacy Easement

Section 1104 of the MPC gives municipalities the authority to enter into an Intergovernmental Cooperative Implementation Agreement upon the adoption of a regional comprehensive plan. If this provision of the MPC is exercised, these agreements must establish the following:

- Process to achieve general consistency between individual municipal zoning ordinances and subdivision and land development regulations within two (2) years.
- Mechanism for resolving disputes over the interpretation of the comprehensive plan and the consistency of implementing plans and ordinances.
- Process for review and approval of developments of regional significance and impact of these developments on member municipalities.
- Role and responsibility of member municipalities with respect to implementation of the plan, including the provision of public infrastructure services, affordable housing, and the purchase of real property, including rights-of-way and easements.
- A yearly report by member municipalities to the county planning agency concerning activities carried out pursuant to the agreement.

Although implementation agreements are not required, if municipalities elect to enter into one, they create the following additional powers:

- The sharing of tax revenues and fees by municipalities in the region.
- The adoption of a regional transfer of development rights (TDR) program to enable development rights to be transferred from rural resource areas in any municipality in the region to designated growth areas in any municipality in the region.

Form and Function of Government

The Form and Function of Government is a description of the region's municipal forms of government, as well as the identification of each member's advisory councils, commissions, authorities, and intergovernmental organizations that the governing bodies participate in with regard to regional affairs. The participation and support of these various entities will be essential and critical to the successful implementation of this Comprehensive Plan. This element of the Plan will also identify and evaluate the consistency among and between local plans, codes, and ordinances.

Form of Government

The townships in the region (East Penn, Franklin, and Mahoning) are all townships of the second class governed by the Second Class Township Code in 53 P.S. § 65101-68701, while the boroughs are governed by the Borough Code in 53 P.S. § 45101-48501.

The municipalities in the region were incorporated in the following order:

- East Penn Township 1768 (previously part of Towamensing Township)
- Mahoning Township 1842 (previously part of East Penn Township)
- Franklin Township 1851 (previously part of Towamensing Township)
- Lehighon Borough 1866 (previously part of Mahoning Township)
- Weissport Borough 1867 (previously part of Franklin Township)

Carbon County was incorporated in 1843 from parts of Northampton and Monroe Counties.

The Pennsylvania Municipalities Planning Code, Act 247 as amended and contained in 53 P.S. § 10101-11202, provides enabling legislation for the municipalities in the functions of planning, zoning, subdivision and land development, and official maps; including regional planning.

Function of Government

The various elected and appointed boards, councils, commissions, authorities, and official positions that exist within the municipalities of the region are contained in Table 5-1. In addition to the Central Carbon County Comprehensive Planning Committee, which oversaw the preparation of this Plan, other intergovernmental organizations that members of the region are actively involved in include the following:

- Carbon County Home Health Care Advisory Board (includes representatives from Mahoning Township)
- Carbon County Solid Waste Advisory Committee (includes representatives from East Penn Township, Franklin Township, and Weissport Borough; along with five other municipalities)
- Carbon County Tax Committee
- Central Carbon Municipal Authority
- Lehigh Canal and Recreation Commission
- Lehighon Memorial Library Board

Except for Lehighon Borough, which has a significant number of paid employees¹⁷, all other municipalities in the region depend heavily upon the personal interests and available time of their elected officials, advisory boards, and other volunteer organizations.

All three townships and the Borough of Lehighon have contracted with a vendor to produce and distribute community maps to residents and businesses with general information about the municipality and local business advertisements. None of the municipalities in the region,

¹⁷ According to the Center for Workforce Information & Analysis, Lehighon Borough ranked 40th in Carbon County in the number of employers in 2009.

however, prepare newsletters to keep residents informed of current events, important information or notices, or topics of general interest.

Table 5-1: Municipal Boards, Organizations and Officials

POSITION	EAST PENN TOWNSHIP	FRANKLIN TOWNSHIP	LEHIGHTON BOROUGH	MAHONING TOWNSHIP	WEISSPORT BOROUGH
Elected					
Governing Body	5 members 6-year term	3 members 6-year term	7 members 4-year term	5 members 6-year term	5 members 4-year term
Mayor	n.a.	n.a.	4-year term	n.a.	4-year term
Auditors	3 members 6-year term	3 members 6-year term	6 members 6-year term	3 members 6-year term	n.a.
Tax Collector	4-year term	4-year term	4-year term	4-year term	4-year term
Appointed					
Assessor	√				
Auditor	√	√	√	√	√
Building Code Official	√	√	√	√	√
Carbon County Home Health Care Advisory Board				√	
Carbon County Solid Waste Advisory Committee	√	√			√
Central Carbon Municipal Authority		1 member 5-year term	2 members 5-year term	1 member 5-year term	1 member 5-year term
Civil Service Commission			3 members 6-year term		
Emergency Management Coordinator	√	√	√	√	
Encroachment Officer				√	
Engineer	√	√	√	√	√
Fire Chief/Marshal	√	√	√	√	
Lehigh Canal & Recreation Commission	√	√	√	√	√
Lehigh Memorial Library Board	√				
Manager			√		
Parks & Recreation Director			√		
Parks Board/Commission	5 members 5-year term				
Planning Commission	5 members 4-year term	5 members 4-year term	7 members 4-year term	5 members 4-year term	
Police Chief	√	√	√	√	√
Recreation Board/Committee	5 members 5-year term	5 members 5-year term		3 members	
Roadmaster/Public Works Superintendent	√	√	√	√	
Secretary	√	√	√	√	√
Sewage Enforcement Officer	√	√	√	√	
Sewer/Municipal Authority			5 members 4-year term	5 members 5-year term	3 members 3-year term
Shade Tree Commission			5 members 3-year term		
Solicitor	√	√	√	√	√
Tax Collector - Local Services		√			
Treasurer	√	√	√	√	√
Vacancy Board	6 members	4 members	8 members	6 members	6 members
Water Authority			5 members 5-year term		
Zoning Hearing Board/Board of Appeals	3 members 3-year term	3 members 3-year term	5 members 5-year term	3 members 3-year term	3 members 3-year term
Zoning Officer	√	√	√	√	√

Citizens are increasingly using the Internet to stay informed and to access data and information. Four of the five members of the region currently have websites to help inform residents of important actions and events and to provide information of interest: East Penn Township (www.eastpenntownship.tripod.com), Franklin Township (www.franklintownshipcarboncounty.com), Lehighon Borough (www.lehighonborough.com), and Mahoning Township (www.mahoningtownshiponline.com). Weissport Borough should consider developing a website as a way of improving communications with their residents and visitors, particularly to compensate for having no regular office hours or daily contact information. The costs of creating and maintaining a website could be off-set by using volunteers and/or high school or college intern students majoring in information technology. At a minimum, websites should include the following information:

- Location, contact information, and hours of operation for administrative offices
- Names and contact information for members of the governing body and municipal staff
- Boards and commissions, with members' names and terms
- Meeting schedules of board and commissions
- Meeting agendas and minutes (East Penn Township has a free subscription service where recipients receive copies of approved minutes automatically)
- News and upcoming events
- Road maps of the municipality
- Location of park and recreation facilities, with any rules and regulations, including any user fees or reservation policies
- Copies of comprehensive plans, zoning ordinances, and subdivision/land development regulations or links where they can be accessed
- Links to important regional, county, and state websites (e.g. – Lehighon Area School District, Carbon County, Delaware & Lehigh National Heritage Corridor, Chamber of Commerce, NEPA, Wildlands Conservancy, Beltzville State Park, Conservation District, DEP, Appalachian Trail Conservancy, Audubon Pennsylvania, U.S. and state legislators, etc.)

Many aspects of these websites will be consistent throughout the region and might be efficiently shared. Once created, it is equally important to routinely maintain and update the website to provide the most accurate and current information to visitors.

Consolidation

At the request of the members of Borough Council in office at the time, the 1972 Comprehensive Plan for Weissport Borough devoted considerable discussion to the possibility of consolidating or merging the Boroughs of Weissport and Lehighon into a single municipality. Although this did not lead to a detailed consolidation study or any other further action during the intervening 40 years, this Plan recommends that the feasibility and desirability of consolidation be revisited and seriously discussed.

The population of Weissport Borough has decreased since 1950, from 674 persons to an estimated 428 in 2009. The Borough office has no regular office hours during which residents can visit or conduct business. Messages via telephone or email and requests for information are often left unanswered and it has been difficult to find volunteers to fill vacant positions and attend meetings.

Although “bigger is not always better”, it can also be argued that there is a point when the size of local government is too small to provide the services and accessibility to public officials and employees that most residents expect and deserve. Local governments are finding it increasingly difficult to deliver and maintain services for their residents due to rising costs, increasing requirements and mandates, increasing needs from the growing complexity of society, and the increasing expectations of taxpayers.

Weissport Borough is not a financially distressed community and therefore should not be an economic burden to any community that absorbs it. Although the Borough’s revenue decreased significantly between 2008 and 2009, as many municipalities’ revenues did, it still experienced a slight budget surplus, as it has over the last four years combined.

The 1972 Comprehensive Plan focused on the consolidation of Weissport and Lehighton Boroughs due to their related history and development patterns along the Lehigh River. During any future discussion of consolidation, consideration should also be given to the absorption of the Borough into Franklin Township, from which it originated in 1867. Whereas the Lehigh River forms a large physical and accessibility barrier between the boroughs, Weissport Borough and Franklin Township are more closely connected physically and geographically, with only the narrow Lehigh Canal separating the two.

Consolidation with Lehighton Borough would need to follow the procedures contained in the *Municipal Consolidation or Merger Act*, 53 Pa. C.S. Chapter 7. Recent amendments to this act (Act 102 of 2010) allows communities interested in merging or consolidating to develop both a merger/consolidation plan and a new home rule charter within the same process and allow voters to approve the resulting plan in a single referendum. Previously, the two issues had to be initiated and voted on through separate, sequential processes which added years and significant costs to the effort. Home rule municipalities can act except where they are specifically limited by state law, whereas communities without home rule can only act where specifically authorized by state law.

Consolidation with Franklin Township would need to follow the procedures established in Article III of the Borough Code, *Annulment of Charters and Change of Corporate Names*. It requires a petition of at least 10% of the registered voters of the Borough be filed in County Court, following which a question on the annulment of the Borough’s charter is placed on the next election.

Regardless of which municipality the Borough is considered for consolidation, there is currently considerable duplication of effort and expense due to having separate government units, police departments, public works equipment, municipal buildings, etc. Such duplication leads to added costs and to a fragmented approach to common problems.

Unfortunately, no residents or property owners in Weissport Borough responded to the citizen survey that was distributed as part of the public participation process of this Plan to determine how the level of service and government accessibility was viewed in the Borough. Although no recommendations regarding consolidation are included in this Plan, it is suggested that a survey be mailed to all residents and property owners in the Borough to ascertain their opinions regarding consolidation prior to any consolidation study or plan being considered in the future. At a minimum, Weissport Borough should continue to cooperate and coordinate with neighboring municipalities of the Central Carbon County region.

Consistency of Local Plans, Codes, and Ordinances

An inventory of local plans, codes, and ordinances adopted by the region’s members is included in Table 5-2. Except for Lehighon Borough’s 1994 Comprehensive Plan, all other comprehensive plans in the region were prepared 35 to 40 years ago. Comprehensive plans are the foundation and framework for all planning and development in a community and are required by the Pennsylvania Municipalities Planning Code to be reviewed at least every 10 years.

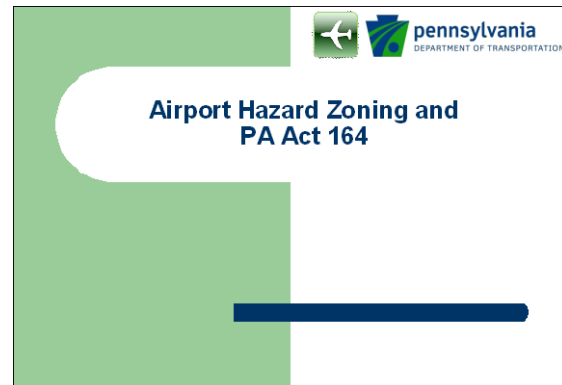
Table 5-2: Local Plans, Codes, and Ordinances

Title	East Penn Township	Franklin Township	Lehighon Borough	Mahoning Township	Weissport Borough
Act 537 Sewage Facilities Plan	2006	1994	1995	1995	2000
Airport Ordinance	1991	1991	n.a.	n.a.	n.a.
Comprehensive Plan	1970s	1973	1994	1976	1972
Construction Standards	2007	n.a.	n.a.	n.a.	n.a.
Floodplain Ordinance	1993	2002	1994	1992	2002
Greenway & Open Space Plan	n.a.	n.a.	n.a.	n.a.	n.a.
Mobile Home Ordinance	1981	n.a.	n.a.	n.a.	n.a.
Park & Recreation Plan	n.a.	n.a.	n.a.	n.a.	n.a.
PRD Ordinance	n.a.	n.a.	n.a.	n.a.	n.a.
Stormwater Management Ordinance	2007	n.a.	n.a.	n.a.	n.a.
Subdivision Ordinance	2008	1993	1974	1983	1971
Water Study	n.a.	1970	n.a.	n.a.	n.a.
Zoning Ordinance/latest amendment	1996/2009	1972/2009	1997	1981/2009	1971

Zoning ordinances, the primary implementation tool of comprehensive plans, have been adopted by all five municipalities, with the latest versions dating from 1971 (Weissport Borough) to 1997 (Lehighon Borough). The township zoning ordinances have been amended as recently as 2009.

The zoning ordinances are relatively consistent between municipalities and along shared boundary lines (Map 5-1). The higher density residential districts and higher intensity non-residential uses are concentrated in and adjacent to Lehighon Borough and along major transportation routes (i.e. – U.S. Route 209, PA Route 443, and PA Route 895). Some medium density residential, commercial, and industrial districts are scattered in more remote and rural areas of the region in East Penn and Mahoning Townships, potentially contributing to suburban sprawl if developed in the future. There are no zoning district conflicts along any shared boundaries where high intensity uses, such as industrial uses, are permitted adjacent to low density residential districts.

Although East Penn Township has an airport zoning ordinance, the Bureau of Aviation currently lists this ordinance as inconsistent with Act 164, the Pennsylvania Airport Zoning Act. Franklin Township has adopted an airport ordinance due to the presence of the Beltzville Airport in the township. Lehighon Borough and Mahoning Township, the site of Jake Arner (Carbon County) Memorial Airport, currently have no airport zoning ordinances.



Flooding is a recurring event in the region due primarily to the presence of the Lehigh River. Significant flooding in the area has occurred in 1972, 1985, 1996, 2004, and 2006¹⁸. Damage from flooding is a particular concern for Weissport Borough, where 99% of the Borough is located in the 100-year floodplain. As a result, it has had a levee system since 1934.

A comparison of the floodplain ordinances and regulations in the region is included in Table 5-3. As discussed in Chapter 4, Regional Focus Areas and Issues, *Principle 1 – Ensure the Economic Vitality of the Region*, floodplain regulations in the region are not consistent, particularly for properties which cross municipal boundaries (e.g. – Packerton Yards). Franklin Township and Lehigh Township currently prohibit any new construction that would increase flood heights in the FW Floodway Area, while all new construction is prohibited within 50 feet from streambanks in the FA General Floodplain Area. In Mahoning Township, no development is permitted in the FW Floodway Area unless the effect of such development on flood heights is fully offset by accompanying stream improvements and all structures are floodproofed. Development is permitted in FF Floodway-Fringe and FA General Floodplain Areas if properly floodproofed.








In Franklin Township and Lehigh Township, the Flood Insurance Rate Maps (FIRM) and the floodplain ordinances delineate flood-fringe areas; however, no regulations exist in either ordinance for these areas of the floodplain. Lehigh Township and Weissport Boroughs' floodplain ordinances contain provisions which allow construction or development in certain floodplain areas if a permit is obtained from PADEP, but at the same time state that construction or development in these areas is prohibited.

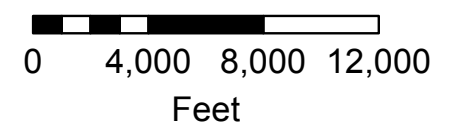
In 1995, a stormwater management plan was prepared by the County and approved by DEP in accordance with the Pennsylvania Stormwater Management Act, Act 167. To date, East Penn Township has been the only municipality in the region to enact a stormwater management ordinance to implement the plan. The other four municipalities have stormwater management regulations in their subdivision and land development ordinances, but these are not in compliance with the County's Act 167 Plan. How stormwater is managed directly relates to and influences the frequency and magnitude of flooding events.

¹⁸ Defined as those which resulted in the declaration of a major disaster. Source: http://www.fema.gov/news/disasters_state.fema?id=42.

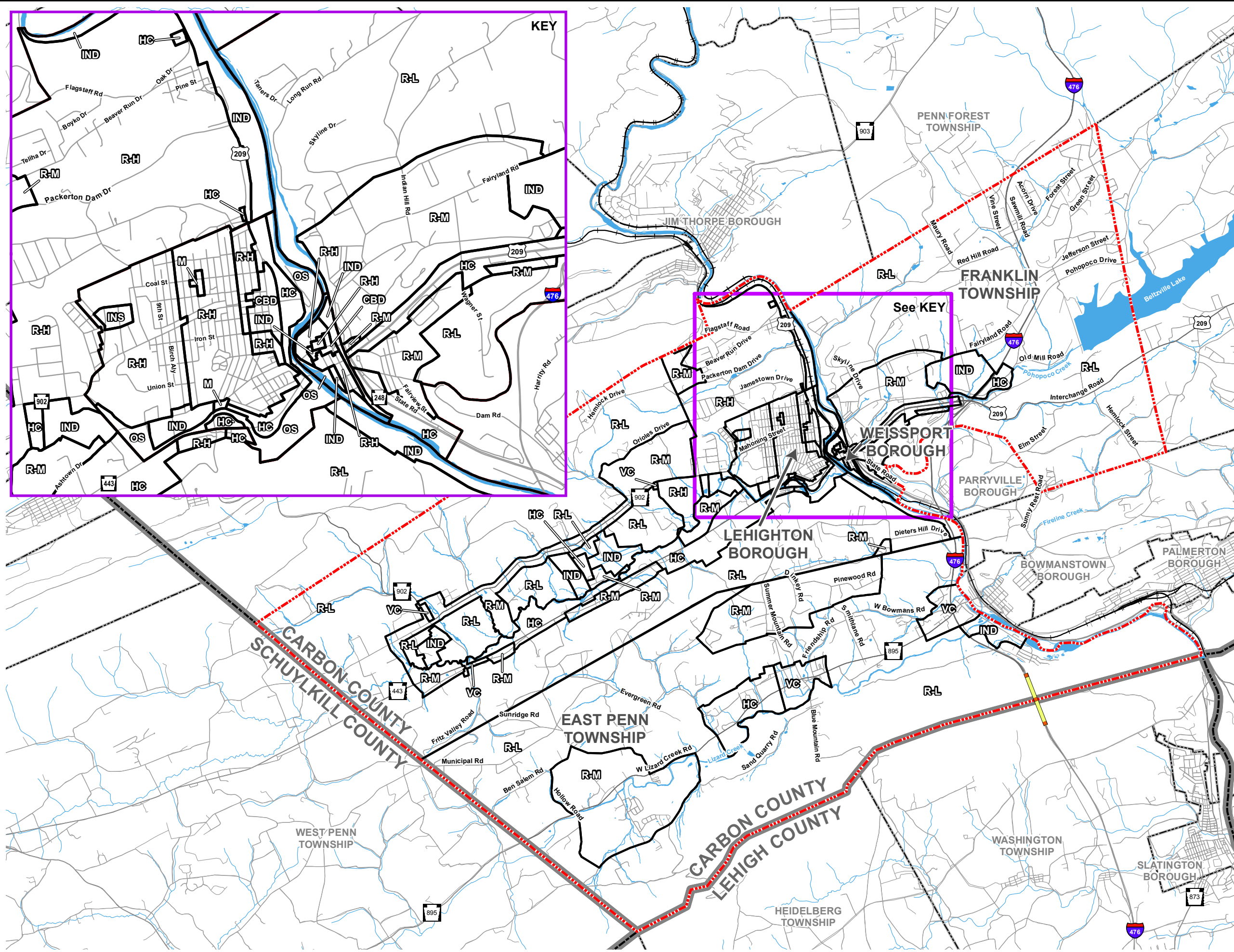
Map 5-1: Existing Zoning

Legend

-  Zoning District
- R-L Residential - Low (1 AC or Larger)
- R-M Residential - Medium (10,000 SF - <1 AC)
- R-H Residential - High (<10,000 SF)
- CBD Central Business District
- VC Village Center
- HC Highway Commercial
- IND Industrial
- INS Institutional
- OS Open Space
- M Mixed Use
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel



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None of the members of the region currently have a municipal park and recreation plan or a greenway and open space plan. A regional Park, Recreation, Greenway, and Open Space Plan was prepared concurrently with this Comprehensive Plan.

Table 5-3: Floodplain Ordinances

	EAST PENN TOWNSHIP		FRANKLIN TOWNSHIP		LEHIGHTON BOROUGH		MAHONING TOWNSHIP		WEISSPORT BOROUGH	
	Flood Insurance Rate Map (FIRM) ¹	Floodplain Ordinance	Flood Insurance Rate Map (FIRM) ¹	Floodplain Ordinance ²	Flood Insurance Rate Map (FIRM) ¹	Floodplain Ordinance ²	Flood Insurance Rate Map (FIRM) ¹	Floodplain Ordinance	Flood Insurance Rate Map (FIRM) ¹	Floodplain Ordinance
Established/Adopted	6/3/2002	1993	6/3/2002	2002	6/3/2002	1994	6/3/2002	1992	6/3/2002	2002
Zones/Districts	A	per FIRM	A	FA (General Floodplain Area)	A	FA (General Floodplain Area)	A	FA (General Floodplain Area)	AE	FE (Special Floodplain Area)
	AE	Floodplain Soils	AE	FE (Special Floodplain Area)	AE	FF (Flood-Fringe Area)	AE	FF (Flood-Fringe Area)	Floodway Areas in Zone AE	FW (Floodway Area)
	Floodway Areas in Zone AE		Floodway Areas in Zone AE	FF (Flood-Fringe Area)	Floodway Areas in Zone AE	FW (Floodway Area)	Floodway Areas in Zone AE	FW (Floodway Area)		
				FW (Floodway Area)						
Notes:	Floodplain ordinance allows passive uses within the floodplain provided that they do not require enclosed structures, fill or storage, or dumping.		No construction in FW area that would cause any increase in flood heights. Construction in FE area permitted as long as it does not increase the flood elevation more than 1 foot. Permit required for any construction within 50 feet from streambank in FA or FE		No construction in FW area that would cause any increase in flood heights. No construction within 50 feet from streambank in FA area. No regulations for FF area.		No development permitted in FW area unless the effect on flood heights is fully offset by accompanying stream improvements and all structures are floodproofed. Development permitted in FA and FF area if properly floodproofed.		No construction in FW area that would cause any increase in flood heights. No construction in FE area within 50 feet landward of Flood Protection Levee, otherwise construction in FE area permitted as long as it does not increase the flood elevation more than 1	
1. Zone A = No Base Flood Elevations determined, Zone AE = Base Flood Elevations determined.										
2. FA = FIRM Zone A, FE = FIRM Zone AE with no floodway delineated, FF = area outside of FIRM Zone AE floodway, FW = Floodway Area in FIRM Zone AE.										

Franklin Township is the only municipality in the region that has prepared and adopted a water study. The Water Resources Management Plan included in *Principle 4 – Conserve the Region’s Natural and Cultural Resources* recommends the following to address the future water needs of the region and to plan for the avoidance and mitigation of potential local impacts from depletion of and contamination of the existing water supply:

- Consider the development of a well ordinance covering basic well construction to protect residents from improperly constructed wells. This would typically apply to new construction and the replacement of any existing wells.
- Review the options for the area-wide management of individual on-lot sewage systems and new small community wastewater systems.

Although the region appears to have an adequate supply of high quality groundwater at the present time, these minimal methods will help ensure that this supply is protected and remains available for the future.

Energy Conservation Plan

To promote energy conservation and the effective utilization of renewable energy sources, this plan:

- Analyzes the impact of each of the other components and elements of the Comprehensive Plan on the present and future use of energy in the region,
- Details specific measures contained in the other plan elements designed to reduce energy consumption, and
- Proposes other measures that the region can take to reduce energy consumption and to promote the effective utilization of renewable energy sources.

Existing Energy Resources

Principle 4 – Conserve the Region’s Natural and Cultural Resources includes a comprehensive inventory of the natural features and historic resources in the region. Those resources which relate to energy production and conservation, include the following:

Coal and Gas Resources

Although it is part of the one county in Pennsylvania named after coal, the region does not contain any coal resources. Although it is underlain by the Marcellus shale formation, there are limited natural gas resources in the area since this part of the formation has been determined to not contain enough production (0-58 cu. ft./sq. mi.) and is too deep (8,000 – 9,000 feet) to make gas recovery profitable at this time. No gas leases have been purchased or permits issued to date in Carbon County.

Wind Resources

Power generation from wind has become more economical recently and wind farms have been developed in some areas in Pennsylvania. Areas within the region which have been identified as having highest potential for commercial power generation from wind are located along the ridgeline of Blue Mountain in East Penn Township. This resource not only presents opportunities for the use of wind to generate sustainable sources of energy, but also involves some potential concerns. The concerns include the aesthetics and impacts to this scenic resource and potential impacts on migratory birds. Much of the land with the highest potential is publicly owned, but leasing of public lands for natural resource development is a common practice in Pennsylvania. Currently, East Penn Township does not have any regulations regarding wind turbines.



Water Resources

Water has been one of the primary sources of energy in the historical development of the area. Early water-powered mills were used for lumber production, food processing, and early industry. With the construction of Beltzville Lake, the potential was created for the use of the dam for electrical generation. Leighton Borough has obtained a permit to use water from the dam for the generation of electricity, but has not moved forward with the project. Generation of electricity from water depends on two primary factors: the head, or height the water falls, and the volume of water. Both of these factors are limited at Beltzville Lake and it is estimated that about 3 megawatts per day could be generated. This is less than half of the electricity used by

Borough residents and the project, while physically feasible, is not cost effective at the present time. The cost effectiveness of the project could change based on the availability of grants or an increase in the current price of electricity.

Wood Burning

Since much of the region is forested, wood continues to be a common source of heat. With the recent advent of outdoor furnaces, it is a more visible and viable resource. While often unnoticed in the more rural portions of the region, heating with wood can have a significant impact on air quality in more developed areas. The average emissions from one outdoor furnace are equivalent to emissions from 205 oil furnaces or as many as 8,000 gas furnaces.¹⁹



Franklin Township and Lehighon Borough currently have regulations dealing with outdoor furnaces, with Mahoning Township in the process of developing an ordinance. They establish setbacks, manufacturer specifications and standards, operation requirements, and permits for the installation of such furnaces. DEP published new rules in October 2010 that regulates where the units can be located and what can be burned in them. Local municipalities may impose restrictions that are more stringent than DEP's.

Geothermal Energy

While the region does not contain any commercially attractive geothermal resources, it is being used as a source for heat pumps at an increasing rate. These systems use either groundwater or some form of ground contact exchange (closed loop systems) as the source of the heat exchange that takes place in the heat pump as opposed to the common air source heat pumps. These systems increase the efficiencies of a heat pump, especially in temperature extremes. The potential issues concerning groundwater source heat pumps involve the excessive withdrawal of water for the systems and its discharge to the surface. The other is the potential for groundwater contamination if the transfer fluid in a closed loop system leaks into the groundwater supply.

Energy Development Plan

To address the future energy needs of the region and to plan for the avoidance and mitigation of potential local impacts from energy use and development in the area, the following considerations are provided:

- Continue to monitor the feasibility of hydroelectric power from Beltzville Lake as energy prices increase and grants become available for sustainable energy projects.
- Provide a forum for the discussion of the potential development and the costs/benefits of a wind farm on the Blue Mountain ridge.

¹⁹ *Clearing the Air: DEP Issues New Rules for Outdoor Furnaces to Reduce Emissions, Protect Air Quality.* PA Township News, January 2011.

- Consider permitting wind turbines in other areas of the region. Franklin Township’s zoning ordinance currently permits wind turbines in all districts and includes regulations on their location, construction, and appearance.
- If well ordinances are adopted in the region, incorporate safeguards for the groundwater from improper geothermal development.
- Monitor gas extraction activities in the Marcellus shale formation and adopt appropriate regulations to protect the region’s groundwater and surface water supplies.

Impact of Comprehensive Plan on Energy Use

The existing land use policies and zoning ordinances of the individual municipalities in the region, particularly those in the more rural areas of East Penn and Mahoning Townships, do not promote energy conservation. Although located along major roads such as PA Routes 443, 895, and 902, commercial, industrial, and medium density residential uses are proposed in areas away from existing development areas and the urban center of Lehighton Borough. In addition, the design standards applicable to the Packerton Yards and Semanoff properties are more suburban than urban, even though the sites are located adjacent to the Lehighton Borough downtown. These future development patterns, if allowed to continue, would increase travel times and energy consumption.

Specific measures contained in this Plan that are designed to reduce energy consumption include the following:

- A land use plan that concentrates high density residential and non-residential uses in and around Lehighton Borough, thereby reducing travel times and allowing an increase in pedestrian travel.
- Use of the *Growing Greener: Conservation by Design* zoning and subdivision provisions which encourage cluster development.
- Creation of a regional transfer of development rights (TDR) program that helps to concentrate development in and around Lehighton Borough and preserves the more rural areas of the region.
- Revitalization of the Lehighton Borough downtown to help reduce vehicle trips to outlying areas for shopping and increase pedestrian activity.
- Redevelopment of the Packerton Yards and Semanoff properties to help concentrate new development in Lehighton Borough, thereby reducing work trips and increasing pedestrian activity.
- Completion of the D&L Trail as not only a recreational asset, but also as an option for commuting to work.
- Establish a regional connected network of multi-modal facilities to encourage walking and biking, thereby increasing mobility and reducing the dependency on motor vehicles and their impact on the environment and quality of life.

Other Energy Conservation Measures

Other measures that the region can take to reduce energy consumption and to promote the effective utilization of renewable energy sources include the following:

- Provide incentives through density bonuses, reduced area and bulk requirements, or revised design standards to encourage the construction of “green” buildings. The extent of incentives could increase depending on the level of construction based on the Leadership in Energy and Environmental Design’s (LEED) Green Building Rating System. The LEED rating system offers four (4) certification levels for new construction (Certified, Silver, Gold, and Platinum) that correspond to the number of credits accrued in five (5) green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality.
- Permit and encourage, through reasonable design standards, the installation of solar panels on new and existing dwellings and buildings. Mahoning Township’s zoning ordinance currently allows solar energy systems and protects solar access for such use.
- Increase efforts such as educational and promotional materials to increase the recycling rates in the region to reach the state goal of 25% of the total waste generated.
- Change the rate structure of the Lehighon Water Authority’s water rates to encourage the conservation of water and related energy costs.

Inter-Relationship Statement

The MPC requires that all comprehensive plans discuss the inter-relationship among the various plan components. Each section of this Plan has been developed and reviewed to ensure that the planning elements and recommendations are consistent and in balance with each other. The Plan is fundamentally inter-connected through of its goals, objectives, and action plan items.

The basis of the Plan is centered on the five (5) regional focus areas: economy, transportation, land use and housing, natural resources, and community facilities/services. It discusses the importance of targeting economic development in and around Lehighon and Weissport Boroughs and locating new development based on market demand for development and natural resource protection, transportation, and infrastructure availability and capacity. Although these components are structured as separate plan chapters, all of the chapters provide recommendations focused on the urban centers of the region and away from sensitive natural resources.

Compatibility and Consistency Statements

The MPC also requires that all comprehensive plans contain “a statement indicating that the existing and proposed development of the region is compatible with the existing and proposed development and plans in contiguous portions of neighboring municipalities, or a statement indicating measures which have been taken to provide buffers or other transitional devices between incompatible uses, and a statement indicating that the existing and proposed development of the region is generally consistent with the objectives and plans of the county comprehensive plan and applicable state plans”.

Existing Development

Map 5-2 depicts the existing land uses in the Carbon County municipalities adjacent to the region, while those for Lehigh County are illustrated in Map 5-3 and Map 5-4 for Schuylkill County municipalities.

Carbon County

Bowmanstown Borough

Existing land uses in Bowmanstown Borough include medium to high density residential, commercial, and public/quasi-public uses next to residential, commercial, and industrial uses in East Penn Township. The Lehigh River does serve as a buffer between these municipalities.



Jim Thorpe Borough

Land uses in Jim Thorpe Borough comprise low density residential, private and commercial recreation, vacant/undeveloped, and water authority uses adjacent to low density residential, private and commercial recreation, and vacant/undeveloped uses in Franklin Township and Mahoning Township. The Mauch Chunk Ridge, Bear Mountain, and Lehigh River provide buffers along this boundary line.

Lower Towamensing Township

Public recreation, private and commercial recreation and vacant/undeveloped uses are located in Lower Towamensing Township next to public recreation, vacant/undeveloped, and open space uses in East Penn Township and Mahoning Township. The Lehigh River serves as a buffer between these municipalities.

Palmerton Borough

Land uses in Palmerton Borough include industrial and vacant/undeveloped uses adjacent to public recreation, open space, and vacant/undeveloped uses in East Penn Township. The Lehigh River provides a buffer between these two municipalities.

Parryville Borough

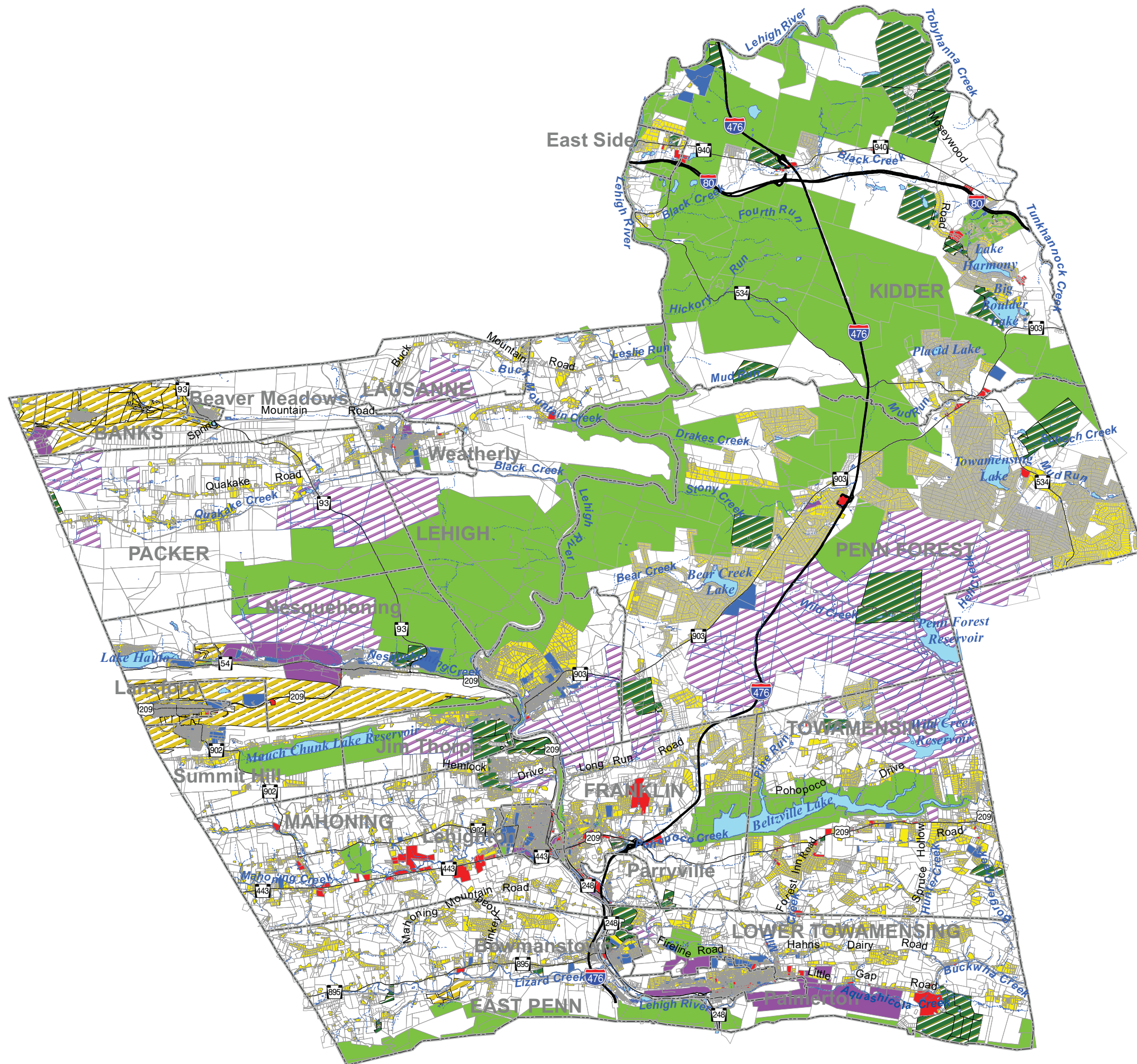
Commercial and vacant/undeveloped uses are located in Parryville Borough next to public recreation and private and commercial recreation in Mahoning Township. The Lehigh River serves as a buffer along this boundary line.

Penn Forest Township

Land uses in Penn Forest Township comprise low density residential, vacant/undeveloped, and water authority uses adjacent to low density residential, agriculture, vacant/undeveloped, and water authority uses in Franklin Township. Bear Mountain provides a buffer between these municipalities.

Carbon County Comprehensive & Greenway Plan

Map 5-2: Generalized Existing Land Use



- Residential
- Public & Qausi-Public
- Public Recreation
- Commercial
- Private & Commercial Recreation
- Industrial
- Mining
- Water Authority

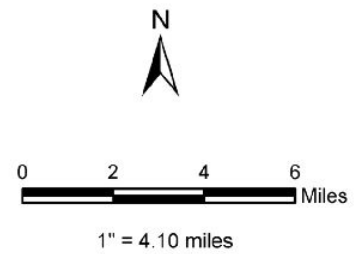
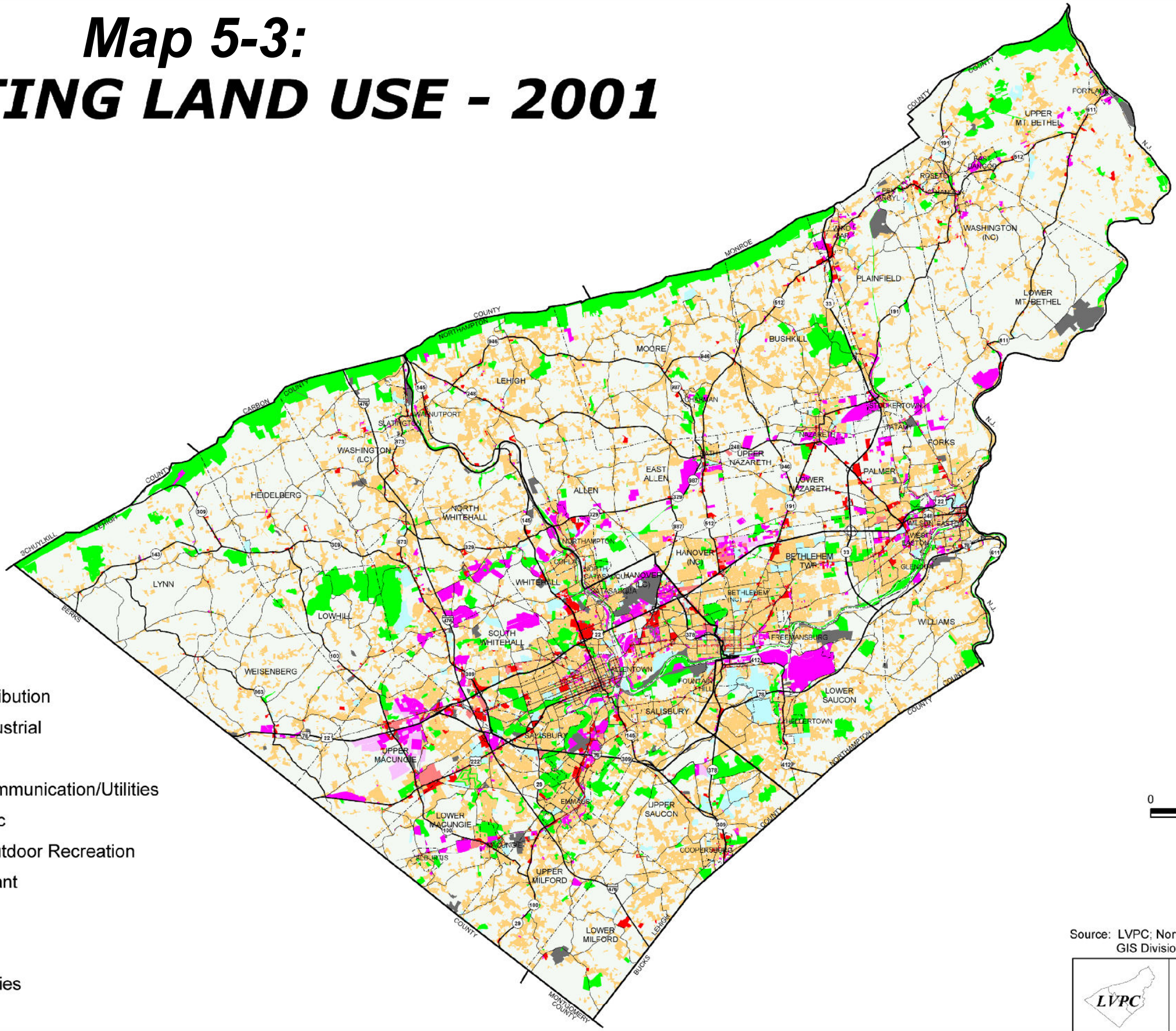
Working Draft: Last Updated 3.17.10



Map 5-3: EXISTING LAND USE - 2001

- Residential
- Retail/Commercial
- Warehousing/Distribution
- Manufacturing/Industrial
- Offices
- Transportation/Communication/Utilities
- Public/Quasi-Public
- Parks and other outdoor Recreation
- Agricultural & Vacant

- Major Roads
- Other Roads
- Municipal Boundaries
- County Boundary



Source: LVPC; Northampton County Dept. of Fiscal Affairs, GIS Division, 2000; Lehigh County Assessment Dept., 2000.



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Map 5-4: Schuylkill County Existing Land Use



Legend

- Woodlands
- Agricultural
- Mining
- Residential
- Commercial
- Industrial
- Institutional
- Prison
- Co-Gen Plant
- Landfill
- Airport
- Utility / Transportation
- Golf Course
- Cemetery



November, 2004

Summit Hill Borough

Low density residential and vacant/undeveloped land uses in Summit Hill Borough are next to low density residential, agriculture, and vacant/undeveloped uses in Mahoning Township. Mauch Chunk Ridge serves as a buffer between these two municipalities.

Towamensing Township

Lands uses in Towamensing Township include low density residential, public recreation (Beltzville State Park), and vacant/undeveloped uses adjacent to low density residential, agriculture, public recreation (Beltzville State Park), vacant/undeveloped uses in Franklin Township.

Lehigh County

Existing land uses in municipalities in Lehigh County, which include Heidelberg Township and Washington Township, consist primarily of parks and other outdoor recreation, agricultural, and vacant uses next to public recreation (i.e. – State Game Lands, National Park Service/ Appalachian Trail, Lehigh Gap Wildlife Refuge) and vacant/undeveloped uses in East Penn Township. The 1,230 foot high Blue Mountain, its steep slopes, and the protection open space along it serve as a substantial buffer between Carbon County and Lehigh County.



Schuylkill County

Agricultural, low density residential, and undeveloped woodland uses in West Penn Township are adjacent to agricultural, low density residential, and vacant/undeveloped uses in East Penn Township and Mahoning Township.

Proposed Development

Since Carbon County’s comprehensive plan is currently in draft form and not officially adopted, existing zoning districts are used to evaluate the consistency and compatibility of the region’s Land Use Plan with the proposed development in the Carbon County municipalities adjacent to the region (Map 5-5). The Palmerton area (i.e. – Bowmanstown Borough, Lower Towamensing Township, Palmerton Borough, and Towamensing Township) did complete a regional comprehensive plan in 2009. Other regional plans are currently underway (e.g. – Middle Carbon County).

The land use plans for Lehigh County and Schuylkill County are included on Maps 5-6 and 5-7, respectively.

Carbon County

Bowmanstown Borough

Zoning in Bowmanstown Borough consists of commercial, office, industry, and open space districts adjacent to proposed village center, industrial, and open space uses in East Penn Township. The Lehigh River does serve as a buffer between these municipalities. The

Palmerton Area Comprehensive Plan proposes rural residential, high density residential, and general commercial uses along the river.

Jim Thorpe Borough

Zoning districts in Jim Thorpe Borough comprise low and medium density residential, commercial, and industrial uses next to rural and suburban density residential and open space uses in Franklin Township and Mahoning Township. The Mauch Chunk Ridge, Bear Mountain, and Lehigh River provide buffers along this boundary line.

Lower Towamensing Township

Rural conservation and rural preservation districts are located in Lower Townamensing Township adjacent to rural residential and open space uses in East Penn Township and Mahoning Township. The Lehigh River serves as a buffer between these municipalities.

Palmerton Borough

Zoning districts in Palmerton Borough include low density residential, commercial, industrial, and rural preservation districts next to rural residential and open space uses in East Penn Township. The Lehigh River provides a buffer between these two municipalities. The Palmerton Area Comprehensive Plan proposes general commercial and industrial uses along the river.

Parryville Borough

Commercial and industrial districts are located in Parryville Borough adjacent to rural residential and open spaces uses in Mahoning Township. The Lehigh River serves as a buffer along this boundary line.

Penn Forest Township

Districts in Penn Forest Township comprise medium density residential and commercial districts next to rural residential, institutional/utility, and open space uses in Franklin Township. Bear Mountain provides a buffer between these municipalities.

Summit Hill Borough

Low density residential and open space districts in Summit Hill Borough are adjacent to rural residential and open space uses in Mahoning Township. Mauch Chunk Ridge serves as a buffer between these two municipalities.

Towamensing Township

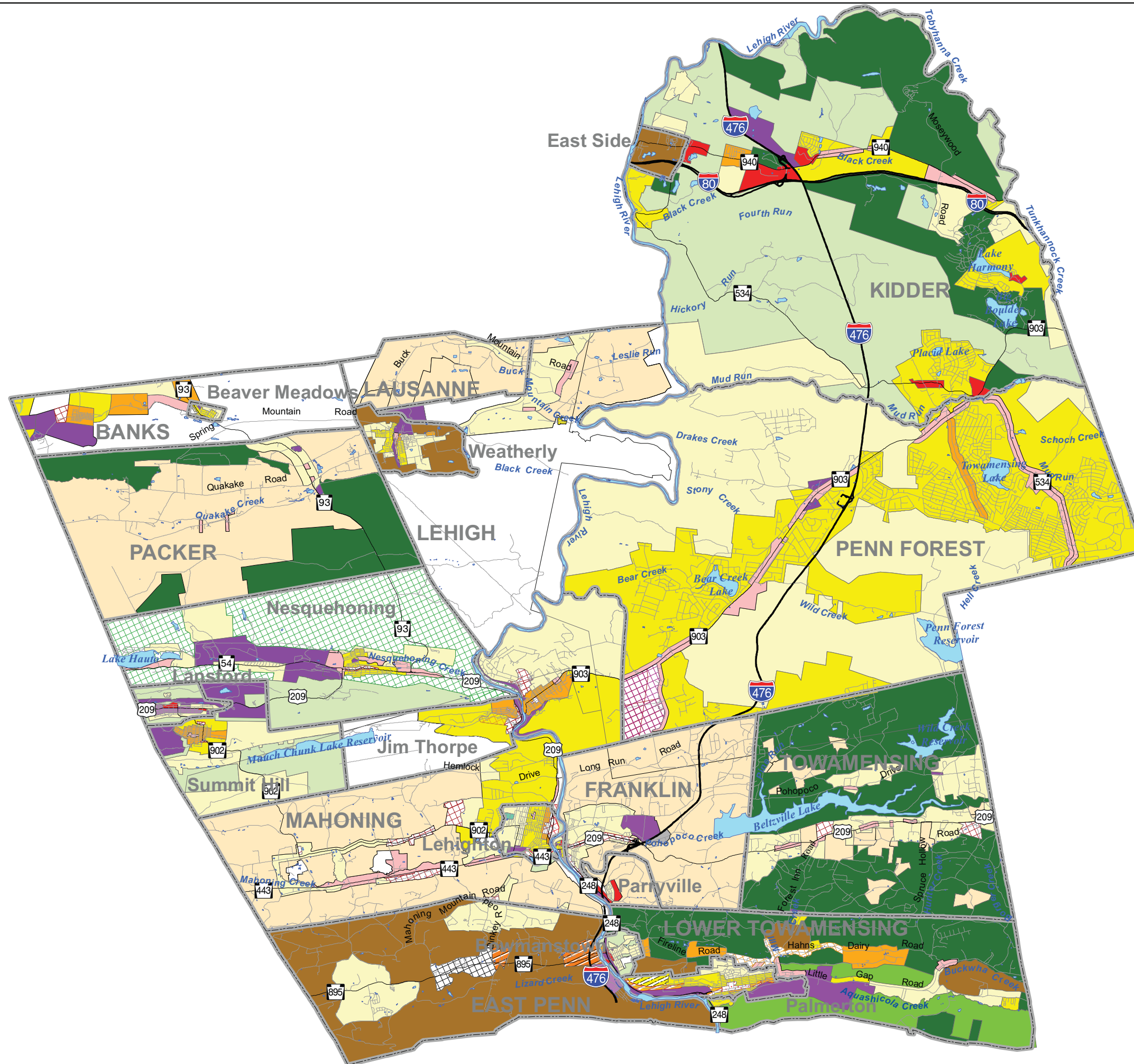
Zoning districts in Towamensing Township include low density residential and rural conservation districts next to rural residential and open space uses in Franklin Township.

Lehigh County

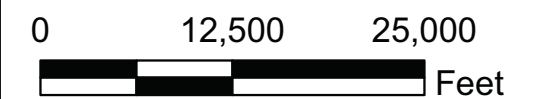
Proposed land uses in Heidelberg Township and Washington Township, Lehigh County, consist of natural resources adjacent to open space uses in East Penn Township. Blue Mountain, its steep slopes, and the protected open space along it serve as a substantial buffer between Carbon County and Lehigh County.

Carbon County Comprehensive & Greenway Plan

Map 5-5: Existing Generalized Zoning

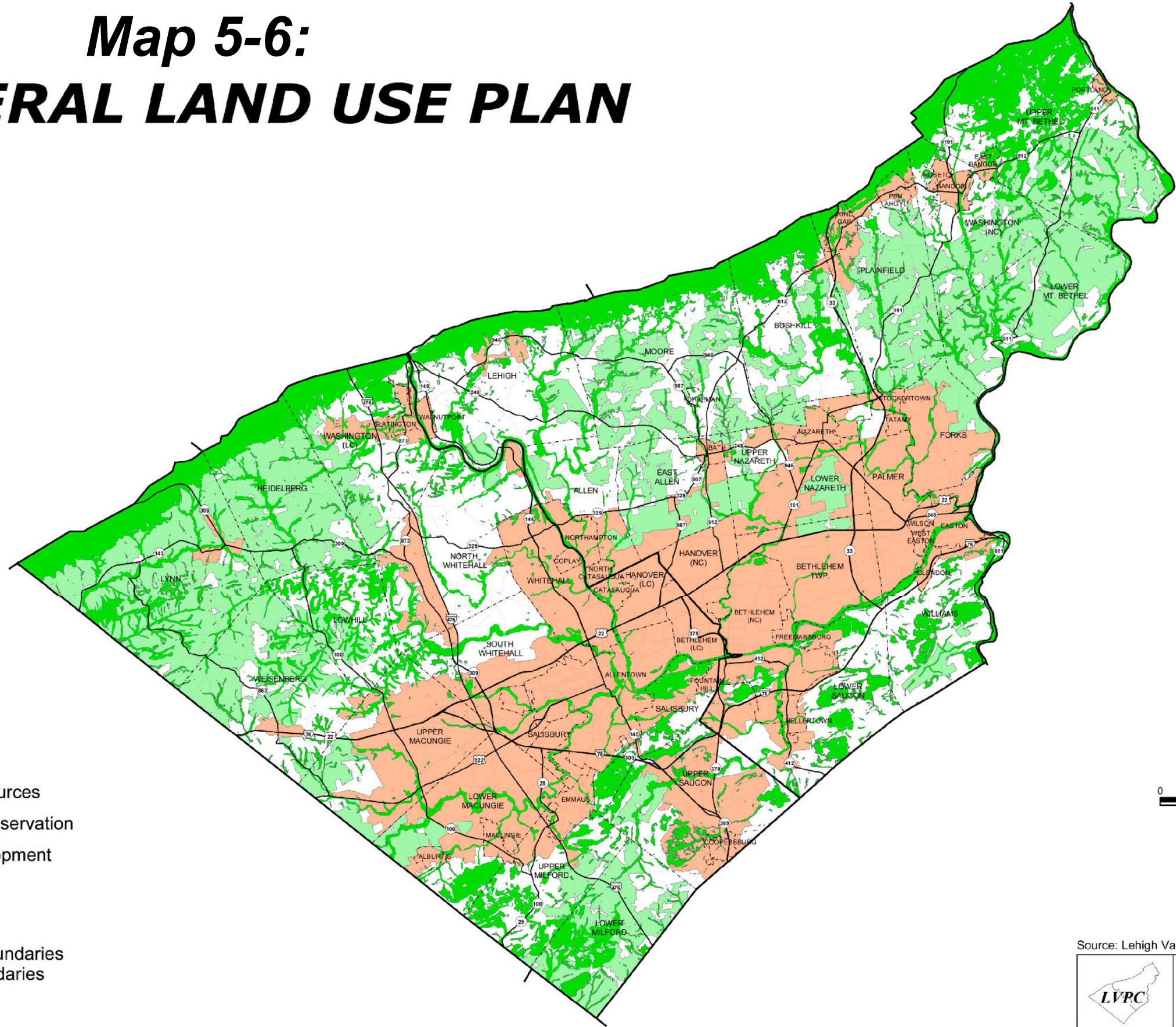


- A - Agriculture
- BC - Business Commercial
- C - Commercial
- C-1 - Office/Industry
- C-2 - Central Business District
- C-3 - Highway Commercial
- CD - Commercial Downtown
- CF - Commercial Fringe
- CO-1 - Conservancy District
- HR - Hospital & Related
- I - Industry
- IC - Industrial/Commercial
- MS - Motorist Services
- OS - Open Space
- PD - Planned Development
- R - Rural District
- R-1 - Low Density Residential
- R-2 - Medium Density Residential
- R-3 - Medium-High Density Residential
- R-4 - High Density Residential District
- R-C - Rural Conservation District
- R-P - Rural Preservation District
- S - Special
- VC - Village Center

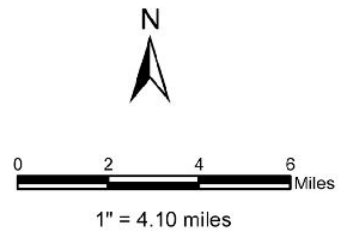


Community Planning Consultants
Urban Research & Development Corporation
 28 West Broad Street Bethlehem, Pennsylvania 18018 610-865-0701

Map 5-6: GENERAL LAND USE PLAN



- Natural Resources
- Farmland Preservation
- Urban Development
- Rural
- Major Roads
- Other Roads
- Municipal Boundaries
- County Boundaries



Source: Lehigh Valley Planning Commission

LEHIGH VALLEY PLANNING COMMISSION
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 Allentown, PA 18109-9397
 (610) 264-4544

Map 5-7: Schuylkill County Land Use Plan



- Legend**
- Residential
 - Medium Density Residential
 - City, Borough or Village Center
 - Industrial
 - Interchange Activity Center
 - Parks, Permanent Open Space & Preserved Areas
 - Agricultural, Resource Conservation & Residential - Very Low Density
 - Trails



February, 2006

Schuylkill County

Agricultural, very low density residential, resource conservation, parks, and permanent open space and preserved areas in West Penn Township are proposed next to rural residential and open space in East Penn Township and Mahoning Township.

Areas of Inconsistency with Land Uses in Adjacent Municipalities

No major or significant inconsistencies exist between existing and proposed land uses in the region and adjacent municipalities. Any areas where inconsistencies are present (e.g. – commercial or industrial uses next to low density residential uses) are buffered by the Lehigh River.

Pennsylvania State Land Use and Growth Management Report

The MPC mandates the Governor’s Center for Local Government Services to prepare a comprehensive State Land Use and Growth Management Report every five (5) years. The 2010 report evaluates contemporary land use issues, significant historic and projected trends, and statewide and regional development patterns. It makes the following recommendations centered on specific opportunities for the Commonwealth to positively impact future growth and development:

- *Local Governments Need Resources for Planning.* Local plans get results, such as community revitalization projects, better designed development, innovative development regulations, and investments in priority infrastructure and community assets, when funding and technical assistance is provided.
- *Strategic Investment.* Since communities have limited resources, investments need to focus on assets that are the most critical to attracting desired development and enhancing quality of life.
- *Green and Walkable.* Changing demographics suggest there is an emerging market for development that is green (energy and environmentally conscious) and walkable (compact, affordable, mixed-use, and favoring pedestrians).
- *Emerging Areas.* Of the five other emerging issue recommendation areas identified in the report, three are applicable to the region: resource protection programs, intergovernmental cooperation, and development permitting processes.

This Plan is consistent with these recommendations in that it contains the following priority action items:

- Preparation of a Lehighon Downtown Revitalization Plan and funding for its implementation.
- Zoning and subdivision/land development ordinance amendments to include *Growing Greener: Conservation by Design* development standards and transfer of development rights (TDR) programs.
- Physical upgrades and financial improvements to the Lehighon water system.
- Redevelopment of the Packerton Yards and Semanoff sites as a compact, mixed-use, pedestrian oriented community integrated into the downtown of Lehighon Borough and the recreational and open space opportunities along the Lehigh River.

- Completion of the D&L Trail, enhancements to the Lehigh River Water Trail, and a trail connection from Beltzville State Park to the D&L Trail.

Appendix A

Key Person Interview Responses Ranked and Summarized

1. **How would you describe the quality of life in the region (quality of life is defined as the level of well-being or lifestyle and the conditions in which you live)?**

3 Excellent 7 Very good 9 Good 1 Fair 0 Poor

2. **Which of the following issues do you believe are the most important to the quality of life in the region? (select up to three responses)**

12 -Employment opportunities	2 -Emergency services (police/fire)
8 -Management of development	2 -Housing needs (cost & availability)
7 -Road & bridge conditions	2 -Shopping opportunities
6 -Maintaining rural character	1 -Better government/better planning
6 -Natural resources protection	1 -Downtown access with adequate parking
6 -Taxes	1 -Historic preservation
4 -Downtown revitalization	1 -Housing (age & conditions)
4 -Protection of drinking water	1 -Public sewage facilities needed
4 -Recreational opportunities	1 -Public water service needed
3 -Agricultural preservation	1 -Reuse of vacant industrial sites
3 -Traffic congestion	0 -Stormwater management/flooding

3. **What one thing would improve the quality of life in the region?**

8 - Greater job opportunities
5 - Less traffic congestion and improved road and bridge conditions
3 - Improved planning, government cooperation, and citizen involvement
1 - Affordable taxes through controlled spending
1 - More and better options for shopping, medical services, etc.
1 - County-wide trail system supported by the County
1 - Control the influx of gangs and drugs into the area, explore regional police force

4. **Part of the regional comprehensive planning effort is an expanded transportation component. Which, if any, of the following areas do you consider the most problematic, dangerous, or in need of improvement in the region?**

13 -Route 209 & 443
7 -PA 443 corridor
4 -McCall Bridge
3 -Route 209/PA Turnpike interchange
1 -Bicycle access to Rt. 248 along Lehigh River
1 -Route 209 & 248 intersection
0 -PA 902 from US 209 to PA 443

5. Which, if any, of the following public or alternative transportation options would you like to see made available or expanded in the region?

- | | |
|--|--|
| 8 - Bus service | 3 - Bike lanes or paths |
| 7 - Park and ride lots | 3 - Train service |
| 4 - Bike facilities (e.g. – bike racks or lockers) | 1 - Trail from Weissport to Jim Thorpe |
| 4 - None | 0 - Airport/airline service |

6. What other transportation improvements do you feel are needed in the region?

- 4 - Improved public transportation service, particularly bus service
- 3 - Bypass around Leighton and Jim Thorpe
- 3 - Improved maintenance of existing roads and bridges
- 3 - New/widened McCall Bridge
- 2 - Improved road system
- 2 - Widening of Rt. 443
- 1 - Improved maintenance of existing trails
- 1 - Improved directional and informational signs, controlled business signs
- 1 - Rt. 209 improvements (turning lane at Rt. 248 & additional traffic signals)

7. The region will be undertaking a park, recreation, greenway, and open space study next year. What types of parks and recreation facilities do you feel need to be provided or expanded in the region?

- | | |
|---|-----------------------------|
| 9 - Playing fields (soccer, baseball, etc.) | 3 - Hiking trails |
| 9 - River access for boating/canoes | 3 - Skateboard park |
| 8 - Nature preserves/greenways | 2 - Hunting areas |
| 7 - Bike paths or trails | 2 - Ice hockey rink |
| 7 - Picnic areas | 2 - Dog park |
| 7 - Playing courts (tennis, basketball, etc.) | 2 - Rollerblade park |
| 6 - Playground for children | 1 - Horseback riding trails |
| 3 - Camping areas | 1 - Running/jogging track |
| 3 - Community center | 1 - Shooting/archery areas |
| 3 - Fishing areas | 0 - Swimming pools |

Other (please explain):

- 1 - Maintenance of existing improvements (i.e. – D&L Trail, Lehigh Canal Park)
- 1 - The Lehigh River and Beltzville State Park are great assets. Capitalize on these resources.
- 1 - I feel our areas of concern have plenty of parks, recreation, etc. No expansion is needed in the region.

8. Are you aware of any existing community plans that may influence community planning, transportation, or parks, recreation, or open space in the region?

- 4 – Packerton site
- 3 – D&L trail and canal
- 1 – Rt. 209/Bear Creek community park

- 1 – Improvements in Jim Thorpe area
- 1 – Stoney Ridge P.A.R.C. expansion
- 1 – Hazleton freight airport

9. Do you have any other comments relative to this interview or the future of the region?

- 10 – Planning, land use, and zoning
- 4 – Transportation improvements
- 3 – Conserve natural and cultural resources
- 3 – Economic development

Appendix B Citizen Survey Results

GENERAL INFORMATION				
1. In what municipality do you reside and/or own property?				
East Penn	18	14.3%		
Franklin	44	34.9%		
Lehighton	37	29.4%		
Mahoning	27	21.4%		
Weissport	0	0.0%		
Totals	126	100.0%		
2. Are you:				
Resident property owner			112	83.6%
Resident non-owner (renter)			10	7.5%
Business owner			8	6.0%
Non-resident property owner (landlord)			3	2.2%
Other			1	0.7%
Total			134	100.0%
3. How long have you lived in the region?				
Less than 1 year	0	0.0%		
1-5 years	8	6.6%		
6-10 years	16	13.1%		
11-15 years	9	7.4%		
16-20 years	7	5.7%		
Over 20 years	81	66.4%		
Not applicable	1	0.8%		
Total	122	100.0%		
4. How many members of your household fit the following age categories (including yourself)?				
Pre-school (age 0-5)			12	4.0%
School age (age 6-19)			53	17.5%
Young adults (age 20-24)			18	5.9%
Adults (age 25-54)			103	34.0%
Young seniors (age 55-64)			45	14.9%
Mature seniors (age 65 & over)			72	23.8%
Total			303	100.0%

QUALITY OF LIFE ISSUES			
5. How would you describe the quality of life in the region (i.e. - the level of well-being or lifestyle and the conditions in which you live)?			
Excellent	11	8.9%	
Very good	42	34.1%	
Good	50	40.7%	
Fair	19	15.4%	
Poor	1	0.8%	
Total	123	100.0%	
6. Why did you choose to live in your community (select up to 3 responses) ?			
Raised here from childhood		62	
Near family and friends		51	
Attractiveness/character of the area		30	
Safety/security/low crime rate		28	
Affordable housing		23	
Convenient to work		23	
Good place to raise children		22	
Low taxes		15	
Other		15	
Convenient to services		11	
Quality of schools		7	
Total		287	
7. Which of the following issues do you believe are the most important to the quality of life in the region (select up to 3 responses) ?			
Employment opportunities		53	
Taxes		43	
Maintaining rural character		33	
Protection of drinking water		32	
Emergency services		28	
Agricultural preservation		27	
Quality of education		27	
Road & bridge conditions		26	
Traffic congestion		26	
Forest & water protection		20	
Open space preservation		18	
Housing needs (cost & availability)		16	
Management of development		15	
Downtown revitalization		14	
Recreational opportunities		13	
Reuse of vacant industrial sites		13	
Shopping opportunities		12	

Historic preservation				10			
Housing (age & conditions)				6			
Public sewage facilities needed				5			
Public water service needed				5			
Stormwater management/flooding				4			
Other				4			
Total				261			

8. What one thing would improve the quality of life in the region?

More/better quality employment opportunities locally					26		
Lower taxes/better tax structure					6		
More/better law enforcement					6		
Better bridges/roads					5		
Less government & government restrictions					5		
Less traffic congestion, traffic control					4		
Limit change/development					4		
Improve education					3		
Restaurants					3		
Replace McCall Bridge					3		
More shopping opportunities					3		
Preserve undeveloped areas, farmland & rural character					3		
Common sense/good/honest government					3		
Industrial development					2		
Lower/reasonable taxes for seniors					2		
Let farmers keep & control farmland					1		
No burning plastics					1		
Enforce salvage & scrap ordinances					1		
More small business by preserving country atmosphere					1		
Lower taxes on houses over 100 years old					1		
Access to public water					1		
Public sewage					1		
No quarrying off of Hollow Rd.					1		
Lower utilities					1		
Trees					1		
A 50+ Townhouse community					1		
Adult parenting classes					1		
Clean up and beautify places for children and teens					1		
Better traffic management along 443 & 209					1		
More parks & recreation					1		
Less people					1		
Quality doctors					1		
Using vacant industrial sites for new job opportunities					1		
Getting people off welfare					1		
Business opportunities					1		
Busing, airport, shopping: Leighton, Jim Thorpe, Allentown					1		
Improving downtown					1		

Promoting local businesses and farms					1	
Senior advantages					1	
A little more public organizations for the young					1	
Total					103	

9. Other than a change in employment, what might make you leave the region?

Property taxes					33	
Overpopulation/over development					18	
Climate					10	
Health/age					9	
Crime					8	
Nothing					8	
Deterioration of the community					4	
Children/family issues					4	
Costs of property improvement/upkeep					3	
Retirement					3	
Lack of amenities/shopping					2	
A windfall/inheritance					2	
Traffic					1	
Over-restrictive township					1	
Disregard for property owners trying to keep properties well					1	
Better housing value					1	
Economic /cost of living					1	
A public sewage facility					1	
Vacation					1	
Incompetent government workers					1	
Total					112	

LAND USE REGULATIONS AND ADMINISTRATION

10. Please indicate your opinion on how each of the land uses listed below should be approached in the region.

	<u>Promote Further Develop- ment</u>	<u>Maintain Current Levels</u>	<u>Limit Further Develop- ment</u>	<u>No Opinion</u>
Age-restricted housing (55+)	45	36	11	21
Agricultural uses	47	53	6	8
Airports	12	38	49	12
Assisted living/long-term care	44	53	4	13
Child day care	33	52	6	22
Elderly housing	50	46	7	10
Home businesses	57	35	9	11
Large scale commercial uses (shopping center/mall)	39	25	46	5
Light industrial uses	56	33	19	5

Low income housing				23	20	64	4
Mixed residential/commercial uses				22	44	35	8
Multi-family residential uses				12	42	41	14
Office or office park				26	40	28	9
Small scale commercial uses				42	42	18	5
Single-family residential uses				37	47	8	6
Other (9)							
Landowner should have final say in use of property (2)							
Limit transients by discouraging rentals							
Add horse trails							
New rules shouldn't apply to old developments; the boundaries aren't there to begin with							
Avoid shopping malls							
Recondition and improve existing school property for use							
No more condemning areas like county fair & residential projects							
Affordable new housing for young people, newly married, with small kids							
11. Given that the same number of lots would be built on a given piece of land, which of the following development patterns would you prefer to see in the region (select up to 3 responses) ?							
Conventional development				21	13.0%		
Cluster development				30	18.5%		
Lot averaging development				22	13.6%		
Village or "new town" designs				27	16.7%		
A combination of these options				43	26.5%		
No opinion				19	11.7%		
Total				162	100.0%		
NATURAL AND ENVIRONMENTAL RESOURCES							
12. Which of the following resources are most important to you in terms of regulation and protection (select up to 3 responses) ?							
Groundwater (quality & quantity)						89	
Streams & rivers, including vegetative buffers along their banks						58	
Wildlife habitat/preservation of natural diversity (incl. Game Lands)						47	
Prevention of noise pollution						43	
Open space connections/greenways (incl. wildlife corridors)						42	
Prime agricultural soils						27	
Prevention of light pollution						23	
Scenic views						22	
Wetlands & ponds						16	
Woodlands & hedgerows						16	
Steep slopes						5	
Total						388	

13. How satisfied are you with open space protection in the region?		
Very satisfied, we have enough open space protection	11	9.6%
Satisfied	27	23.5%
Neither satisfied nor dissatisfied	37	32.2%
Dissatisfied	22	19.1%
Very dissatisfied, too much open space is being lost	18	15.7%
Total	115	100.0%

PUBLIC FACILITIES AND SERVICES

14. The following question is divided into two parts (select the appropriate response for each of the listed services) :

	Rate the following facilities or services in terms of meeting the needs of area residents			Would you support more funding for any of the following services?	
	Adequate	In-adequate	No Opinion	Increase Funding	Do Not Increase Funding
Agricultural preservation	50	38	17	36	52
Ambulance services	100	7	6	34	64
Cell phone connection/coverage	74	24	10	14	72
Communication with area residents	82	16	14	12	71
Electric service	99	7	7	12	70
Fire protection	99	13	3	53	40
Internet service	78	18	14	11	70
Libraries	72	34	7	56	38
Maintenance of state roads	57	53	5	42	42
Maintenance of township roads	49	58	5	51	35
Open space preservation	54	38	17	36	46
Parks & recreation services	71	26	9	31	54
Police protection	85	25	6	40	51
Public sewer service	75	15	25	17	66
Public transportation	52	42	19	32	51
Public water service	79	16	21	15	69
Traffic control (signs, lights, access man.)	74	28	10	21	62
Trash removal	102	6	7	11	72
Other (9)					
More competition needed to lower cable rates					
Public sewer too expensive					
Trash removal expensive – monthly payment would help					
Fire Dept upgrade through continuing education would lower homeowner's insurance costs					
County airport needs public services					
Cut the fat and get paid people to do their jobs					
Schools					
Need more indoor gyms for youth basketball scheduling					
Must increase road service during snow storms or inclement weather					

15. What services should be considered on the regional level vs. the municipal level to improve the quality of service and/or to reduce costs?							
Police protection						47	17.2%
Recycling						43	15.8%
Road maintenance/snow removal						42	15.4%
Parks and recreation						41	15.0%
Libraries						28	10.3%
Trash collection						26	9.5%
Public sewer						24	8.8%
Public water						17	6.2%
Other						5	1.8%
None (3)							
Public transportation							
Lehighton does a great job on snow removal – don't want it changed							
Total						273	100.0%
PARKS AND RECREATION							
16. What types of parks and recreation facilities would you like to see provided or expanded in the region?							
Nature preserves/greenways						48	
Bike paths or trails						39	
Hiking trails						34	
Picnic areas/pavilions						30	
Fishing areas						29	
Swimming pool (indoor)						29	
Playgrounds for children						29	
Shooting/archery area						27	
River access for boating/canoes/kayaks						27	
Hunting areas						26	
Playing courts (tennis, basketball, etc.)						25	
Community center						21	
Running/jogging track						21	
Skateboard park						21	
Camping areas						19	
Playing fields (soccer, baseball, etc.)						19	
Dog park						18	
Motorized trails						17	
Horseback riding trails						15	
Amphitheater/band shell						12	
Rollerblade/street hockey park						10	
Swimming pool (outdoor)						10	
Ice hockey rink						5	
BMX course						4	

Other				7			
None (2)							
Indoor gym for basketball, volleyball, indoor field hockey (2)							
Should be a local issue not regional							
Recreation is adequate							
Only privately owned and funded projects							
Total				494			

17. How would you rate the availability of recreation programs for the listed group?

	<u>Not Enough</u>	<u>Right Amount</u>	<u>Too Much</u>	<u>Don't Know</u>
Pre-School	23	34	6	44
Elementary Students	26	38	8	32
Middle School Students	29	37	7	32
High School Students	36	35	7	30
Young Adults (19 to 39 years)	49	25	4	25
Adults (40 to 65 years)	52	26	3	24
Mature Adults (65 years +)	42	37	3	22
Families	44	33	2	25
People with Disabilities	34	21	5	44
Overall Availability of Programs	34	38	3	40

18. Where do you think the Central Carbon County region should focus its parks, recreation, and conservation efforts and finances in the future?

	<u>High Priority</u>	<u>Low Priority</u>	<u>Not Necessary</u>	
Improving existing parks & playgrounds	29	42	22	10
Purchasing land & developing new parks	13	25	42	21
Expanding recreation programs & services	28	25	34	16
Developing trails & greenways	24	36	27	19
Protecting open space & natural resources	37	46	13	10
Developing walking/biking connections between schools, parks, and neighborhoods	20	33	31	22
Building an indoor recreation center with gymnasium	17	17	39	35
Building athletic fields	8	17	40	38
Developing volunteer involvement with parks, trails, and special events	22	42	23	14
Expanding promotion of available parks & recreation programs	14	47	28	13
Expanding the availability/sharing of school district facilities	31	42	22	15
Expanding cooperative efforts among the region's municipalities for parks, recreation, & conservation	31	36	23	13
Other(5)				
None - do not expand government or increase taxes (3)				
Provide recreational space without organized activities				
Use school facilities especially athletic fields				

19. Please provide your impression of the existing local parks in the Central Carbon County region.

	<u>Excellent</u>	<u>Good</u>	<u>Fair</u>	<u>Poor*</u>	<u>Not Familiar with the Parks</u>
Cleanliness	10	58	22	6	16
Attractiveness	12	51	32	5	15
Safety	8	53	33	6	15
Location	11	60	25	3	14
Facilities available	9	40	37	8	17

*Describe or identify any park with poor rating (12):

Leighton Ashfield playground (3)

Beltzville State Park (2)

Not enough local parks in Mahoning Township (2)

Baer Memorial (2) - unsafe bleachers and empty trailer

Grove by basketball court @ 7th & Iron St. (2) - trash & foul-mouthed kids keep families away

Leighton Park

Leighton – all

20. If you could do one thing to improve parks and recreation in the Central Carbon County region, what do you think it should be?

Charge an entrance fee, especially for non-residents and at Beltzville	19
Keep them clean/maintain them	7
More security & police presence	5
None/nothing	4
Access to area residents only, limit busloads of outsiders in Beltzville State Park	4
Expand/add more parks	3
Improve & modernize, add landscaping	3
Clean canal from central launch to Parryville, use for fishing and tubing	2
More public relations to identify & promote parks & recreation	2
Focus on the Lehigh River/add river access	2
Skateboard park	2
Lifeguard for Beltzville	1
Close it	1
More trails for snowmobiles and four wheelers	1
Funding should be from private donations	1
More programs for children	1
Allow private hunting days for legal hunters	1
Prosecute vandals as adults	1
Reduce waterfowl on, near water areas	1
Get out	1
Stop human encroachment on wildlife	1

Wildlife & tree identification kiosks/educational signage					1
Provide better facilities for young adults					1
Construct bike & walkways through community					1
Utilize School District facilities better					1
Access for all ages and disabled					1
Need a park in Mahoning Township					1
Better parking					1
Nature/bird watching park					1
Water fountains accessible to all ages & disabled					1
Increase the number of indoor facilities for use in the fall and winter					1
Improve connection to Lehigh County's bike trail from Jim Thorpe & Weissport					1
More summer shows open to the public					1
More hours					1
More benches					1
Need dog park					1
Total					78

TRANSPORTATION

21. Which, if any, of the following areas do you consider the most problematic, dangerous, or in need of improvement in the region?

US 209 & PA 443					56
US 209 & PA Turnpike interchange					17
PA 902 from US 209 to PA 443					15
PA 443 corridor					55
Others					17
Thomas McCall Bridge (5)					
Add traffic lights at both motels on Rt. 209 (2)					
Rt. 248 (2)					
Allow left turns off 209 to area businesses (1)					
Rt. 248 entrances and exits to Blockers (1)					
Intersection of Rts. 248 & 209 (1)					
Guard rail on Fairyland Rd./Kris Pines (1)					
Rt. 209 between Leighton and Jim Thorpe (1)					
Bridges (1)					
Rts. 895 to 309/Andreas (1)					
Several back roads need guiderails & lighting (1)					
Total					160

22. Which, if any, of the following public or alternative transportation options would you like to see made available or expanded in the region?

Bus service					52
Train service					48
Bike lanes or paths					28
Park and ride lots					27

None					23			
Bike facilities (e.g. - bike racks or lockers)					12			
Airplane/airline service					9			
Other					3			
Any mass transit must fit the road								
Improve transportation for cars								
Transportation to appointments for the elderly								
Total					202			

HOUSING

23. How do you view the following housing related statements?

<u>The region should:</u>	<u>Agree</u>	<u>Disagree</u>	<u>No Opinion</u>
Promote restoration of historic houses	76	23	26
Encourage more diverse housing types (e.g. - townhouses, twins, apartments)	38	59	27
Encourage additional age restricted housing	49	43	30
Encourage more affordable housing	76	40	10
Encourage more rental housing	32	68	24

24. Please use the space below to offer any other concerns/comments that you would like to express about the future of your community or the Central Carbon County region.

Reduce/eliminate property taxes	6
Leave things alone/keep building to a minimum & majority of land rural	6
Need more jobs in the area/encourage economic development	4
Do not increase taxes	2
Need industrial development (e.g. – at Packerton Yards)	2
Prioritize goals/County & municipalities should establish common goals & work toward implementing them	2
Increase open space, land preservation, & nature parks	2
Taxes are too high for amenities and quality of education	1
Improve bridges & widen roads to and from 443	1
We need more common sense in zoning	1
No government eminent domain of private property	1
Do not encourage low income housing or crime will increase	1
Improve road structure first	1
Get taxpayers permission before raising taxes	1
Lower or eliminate taxes on houses over 100 years old	1
35 mph speed on all roads & enforce	1
Better policing of area will keep it nice	1
Free medical benefits	1
Salvage yard on Rt. 248 gives a bad impression - ordinance needs to be enforced	1
Encourage commercial development in existing designated areas	1
Increase local commercial/industrial taxes	1

A YMCA type facility in the Lehigh area would improve quality of family life and sense of community	1
Encourage commercial development like shopping	1
Limit permit fees for property improvements	1
Concentrate business & industry along major roadways	1
Do not expand government	1
Improve parking at courthouse/especially handicapped	1
Low rent housing attracts people who don't respect their homes	1
Take better care of our veterans	1
Do not allow outsiders to take advantage of resources and local people	1
Amount of money spent on Packerton Shop area is a concern	1
Update or create & enforce laws on junk accumulation and burning	1
Expand transportation, especially airport	1
Seniors on SS and small pension should not pay school tax	1
Enforce existing ordinances	1
Encourage & support maintenance, care & cleanliness of properties & streets	1
2 acre minimum lot size	1
Developers should pay use fees & have open space requirements	1
School tax should come from employed as well as property owners	1
Require performance for pay	1
No leniency for criminals	1
Develop lower Lehigh from Lehigh to Palmerton for fishing & hiking access	1
Biggest concern is traffic on McCall Bridge & Rt. 443 shopping area	1
Work with & include Parryville, Palmerton, Bowmanstown, Towamensing Twp and Lower Powamensing Twp	1
Too much commercial on Rt. 443	1
No support from county planning commission	1
Government workers (police, teachers, PennDOT) need staffs reduced, salaries & pensions cut to be in line with McDonalds's workers	1
Property rights must be upheld	1
Designate areas for rentals & townhouses	1
Mixed communities for all ages	1
Too much trash along the highways, if state or county can't afford the cost of clean-up, use prisoners	1
Keep the farm card	1
Closed minds need to open up or shut up, we need to grow and move forward	1
Total	70

Appendix C – Demographic and Socioeconomic Data and Trends

The information in this Appendix, excerpted and compiled from the U.S. Census, describes and analyzes available population and housing data to characterize the region and to identify trends. This information will be utilized to develop population and housing projections to the year 2030 and to evaluate the future needs of the area in the other component elements of the plan. The results of this analysis help in the development of the region’s land use plan, housing plan, economic development plan, transportation plan, and community facilities plan.

Population Trends

The July 2009 population estimate for the region was 17,793, an increase of nearly 30% since 1950 (Table C-1). This rate of increase is higher than the rate for Carbon County (11%) and Pennsylvania (20.1%) during the same period. Lehigh Township is the most populated municipality (5,468) in the region, with Franklin Township (4,846) and Mahoning Township (4,349) narrowing the gap.

The population trends for the five individual municipalities in the Central Carbon County region during the last six decades clearly demonstrate that the boroughs have experienced declining populations, while the surrounding townships have seen increases in population. Since 1950, the number of people residing in Lehigh and Weissport Boroughs has decreased 16.7% and 36.5%, respectively. Although a portion of the borough population declines can be attributed to the nation-wide trend toward smaller family sizes, the degree of these population losses is primarily the result of the movement of people from urban areas to suburban settings.

Table C-1: Population Trends 1950 to 2009

Municipality	1950	1960	1970	1980	1990	2000	July 2009 Estimate	Numeric	
								Change 1950-2009	% Change 1950-2009
East Penn Township	1,249	1,279	1,318	1,874	2,091	2,461	2,702	1,453	116.3%
Franklin Township	2,598	2,773	3,054	3,402	3,706	4,243	4,846	2,248	86.5%
Lehigh Township	6,565	6,318	6,095	5,826	5,914	5,537	5,468	-1,097	-16.7%
Mahoning Township	2,649	2,852	3,177	3,853	4,198	3,978	4,349	1,700	64.2%
Weissport Borough	674	625	561	486	472	434	428	-246	-36.5%
Central Carbon County	13,735	13,847	14,205	15,441	16,381	16,653	17,793	4,058	29.5%
Carbon County	57,558	52,889	50,573	53,285	56,846	58,802	63,865	6,307	11.0%
								Pennsylvania	20.1%
								United States	103.7%

Source: U.S. Census 1950 to 2000, Pennsylvania State Data Center for 2009 estimates.

Weissport Borough, with 434 residents, was the second smallest borough in Carbon County in 2000. Lehigh Township was the largest borough in population in the County in 2000.

Although East Penn Township has more than doubled in population during this period (116.3%), significantly higher than the rates in Franklin (86.5%) and Mahoning Townships (64.2%), the largest numeric increases were in Franklin (2,248) and Mahoning (1,700). This is due to a lower base population in East Penn Township in 1950.

Population Characteristics

Characteristics of the population that are essential to help understand the region and its future planning include age, race, income and poverty levels, education, occupation and industry, unemployment rate, and travel to work.

Age

Consistent with the national trend created by the large postwar “baby boomer” generation, the population of the individual municipalities and the region has been aging. The median age in Central Carbon County has increased steadily, from 34.6 years in 1980 to 36.9 in 1990, and to 40.3 in 2000 (Table C-2). The region’s population has been aging faster than that of Carbon County, but was still slightly below the County’s median age of 40.6 years in 2000.

Table C-2: Median Age 1980 to 2000

Municipality	1980	1990	2000
East Penn	32.0	35.8	41.3
Franklin	32.7	36.1	40.0
Lehighton	37.5	37.3	40.1
Mahoning	33.6	37.8	43.4
Weissport	33.8	31.7	34.1
Central Carbon County	34.6	36.9	40.3
Carbon County	37.5	37.5	40.6
<i>Source: U.S. Census.</i>			

Lehighton Borough contained the largest elderly population with 1,171 persons 65 years of age or over in 2000. The number of persons 65 years and over in the region and their percentage of the population increased from 2,056 person and 13.3% of the population in 1980 to 3,027 persons and 18.2% of the population in 2000 (Table C-3).

Table C-3: Age Distribution 1980 to 2000

Age Group	1980	1990	2000
Under 5 years	980	1,047	862
5 to 17 years	3,354	2,776	2,718
18 to 20 years		618	499
21 to 24 years	5,517	897	641
25 to 44 years		4,799	4,718
45 to 54 years	2,704	1,750	2,424
55 to 59 years		847	938
60 to 64 years	830	913	826
65 to 74 years	1,302	1,566	1,564
75 to 84 years	754	881	1,083
85 years & over		287	380
Total Population	15,441	16,381	16,653
Under 18 years	4,334	3,823	3,580
% of population	28.1%	23.3%	21.5%
65 years & over	2,056	2,734	3,027
% of population	13.3%	16.7%	18.2%
<i>Source: U.S. Census.</i>			

The trend towards an aging population is expected to continue as the baby boomer age group moves through the age cycle and into retirement. The aging of the region’s population can be reversed if young professional and families can be attracted to the area as a result of expanded job opportunities, downtown revitalization, and an increase in leisure and cultural activities. Regardless, the demand for specialized services, particularly medical services, and housing for the elderly will increase as the elderly population increases in size.

Reflecting the present and future demand for educational services, the school age population (persons under 18 years old) in the region decreased from 4,334 in 1980 to 3,823 in 1990, and 3,580 in 2000. This decline is partially the result of the trend towards smaller family sizes, but can also be attributed to fewer young families and professionals moving into the area. Young adults (18 to 24 years) decreased from 1,515 persons and 9.3% of the region’s population in 1990 to only 1,040 persons and 6.8% of the population in 2000. The young working age group (25 to 44 years) declined from 4,799 persons in 1990 to 4,718 persons in 2000.

Race

The region’s population is predominantly white and has changed little since 1990. The proportion of white residents was 99.2% in 1990 and 98.4% in 2000 (Table C-4). The largest minorities in 2000 were persons of mixed races (i.e. – two or more) and Asians, both comprising 0.5% of the population. Hispanics or Latinos (of any race or origin) were identified with 0.6% of the population in the region, compared to 1.5% of the County population.

Table C-4: Racial Composition 1990 and 2000

	Central Carbon County		Carbon County	
	Number	%	Number	%
1990				
Race	Number	%	Number	%
White	16,257	99.2%	56,403	99.2%
Black/African American	21	0.1%	119	0.2%
American Indian	22	0.1%	45	0.1%
Asian	66	0.4%	176	0.3%
Other	15	0.1%	103	0.2%
	16,381	100.0%	56,846	100.0%
Hispanic or Latino (any race)	68	0.4%	509	0.9%
2000				
Race	Number	%	Number	%
White	16,393	98.4%	57,520	97.8%
Black/African American	38	0.2%	353	0.6%
American Indian	28	0.2%	96	0.2%
Asian	78	0.5%	183	0.3%
Native Hawaiian/Pacific Islander	5	0.0%	20	0.0%
Other	21	0.1%	186	0.3%
Two or more races	90	0.5%	444	0.8%
	16,653	100.0%	58,802	100.0%
Hispanic or Latino (any race)	92	0.6%	858	1.5%
<i>Source: U.S. Census.</i>				

Income and Poverty

The median household (singles, related and unrelated individuals) income in the region was below the County, state, and national level (Table C-5). The median family (related individuals only) income was also below the state and national level, but was higher than the County level. Of the five municipalities in the region, Lehighton and Weissport Boroughs had the lowest household and family income levels in 2000. The median household and family incomes for

residents in the three townships were all above the County level. East Penn and Franklin Townships’ median household incomes were also above the state and national median, while Franklin Township’s median family income was higher than the national level.

Table C-5: 2000 Income and Poverty Levels

Income/Poverty Category							Central Carbon County	Carbon County Penna.		U.S.
	East Penn	Franklin	Lehighton	Mahoning	Weissport					
Median household income	\$42,147	\$43,106	\$28,566	\$35,212	\$30,139	\$34,552	\$35,113	\$40,106	\$41,994	
Median family income	\$47,446	\$50,323	\$35,673	\$43,897	\$37,188	\$42,476	\$42,118	\$49,184	\$50,046	
Number of families in poverty	7	33	165	99	12	316	n.a.	n.a.	n.a.	
% of Families in poverty	1.0%	2.6%	10.8%	8.6%	11.0%	6.7%	6.8%	7.8%	9.2%	
Number of families in poverty w/children	3	25	142	99	10	279	n.a.	n.a.	n.a.	
% of Families w/children in poverty	1.1%	4.7%	20.3%	19.6%	18.9%	13.5%	11.7%	12.1%	13.6%	
Number of children under 18 in poverty	7	49	295	119	20	490	n.a.	n.a.	n.a.	
% of Children under 18 in poverty	1.4%	5.4%	24.9%	15.3%	22.5%	14.2%	13.6%	14.3%	16.1%	
Number of persons 65 and over in poverty	22	39	65	18	2	146	n.a.	n.a.	n.a.	
% of Persons 65 and over in poverty	5.0%	6.2%	6.0%	3.0%	4.4%	5.2%	9.0%	9.1%	9.9%	
n.a. - data not applicable.										
Source: 2000 U.S. Census and Stell Environmental Enterprises, Inc.										

The poverty rate for families with children and for children under 18 years of age were higher for the region as a whole compared to the County, but generally lower than the state and national levels. There were a total of 316 families and 490 children under 18 in the region in poverty in 2000. Among the individual municipalities in the region, the poverty rates for families (with or without children) and children were higher in Lehighton Borough, Mahoning Township, and Weissport Borough than in the County. The highest rate, 24.9% in Lehighton Borough, related to the percentage of children under 18 years of age in poverty.

In contrast, all municipalities in the region were below the County (9%), state (9.1%), and nation (9.9%) in the percentage of elderly in poverty, ranging from 3% to 6.2%. This difference may be explained by the lack of higher paying jobs in the region for working families, but the attractiveness of the area for people of retirement age due to its lower cost of living.

Education

Related directly to income levels, the region had lower education levels than the County, state, and nation in 2000. The percentage of the population 25 years of age and over with less than a high school diploma was 24.2%, compared to 20.9% in Carbon County, 18.1% in Pennsylvania, and 19.6% in the United States (Table C-6). The percentage of the adult population in the region with a college degree (10.1%) was lower compared to County (11%), state (22.4%), and nation (24.4%).

Table C-6: 2000 Education Levels

Education Level (% of Population 25 Years and Over With)							Central Carbon County	Carbon County Penna.		U.S.
	East Penn	Franklin	Lehighton	Mahoning	Weissport					
Less than a high school diploma	22.5%	18.2%	29.1%	23.6%	36.6%	24.2%	20.9%	18.1%	19.6%	
High school graduate or higher	77.5%	81.8%	70.9%	76.4%	63.4%	75.8%	79.0%	81.9%	80.4%	
Bachelor's degree or higher	8.9%	14.8%	6.6%	11.4%	3.0%	10.1%	11.0%	22.4%	24.4%	
Source: 2000 U.S. Census and Stell Environmental Enterprises, Inc.										

Lehighton and Weissport Boroughs had the lowest education levels in 2000, with the proportion of the adult population with less than a high school diploma at 29.1% in Lehighton Borough and 36.6% in Weissport Borough. College graduates comprise a small segment of the adult population in Lehighton Borough (6.6%) and Weissport Borough (3%).

Occupation and Industry

“Occupation” is the kind of work or job that a person performs to earn a living; while “industry” is the type of activity at a person’s place of employment or the sector of the economy to which a particular occupation belongs.

Within the region, the three largest occupational categories in 2000 (Table C-7) were relatively balanced between production, transportation, and material moving (26.7%); sales and office (23.2%); and management, professional, and related occupations (22.8%). Among all occupations, a majority of the region’s workers were employed in “blue-collar” occupations (54%) vs. “white-collar” occupations (46%). This distinction is similar to the County’s employment composition, but more “blue-collar” than the state and nation.

Table C-7: Occupation Categories 2000

Occupation	PERCENT OF TOTAL EMPLOYED							
	Central Carbon County		Carbon County		Pennsylvania		United States	
	1990	2000	1990	2000	1990	2000	1990	2000
Management, professional, and related	14.2%	22.8%	16.0%	22.8%	25.2%	32.6%	26.4%	33.6%
Service	13.0%	15.0%	13.2%	14.9%	13.0%	14.8%	13.2%	14.9%
Sales and office	23.3%	23.2%	24.5%	24.6%	31.7%	27.0%	31.7%	26.7%
Farming, fishing, and forestry	1.4%	0.3%	1.1%	0.2%	1.7%	0.5%	2.5%	0.7%
Construction, extraction, and maintenance	15.2%	12.0%	15.6%	12.9%	11.6%	8.9%	11.3%	9.4%
Production, transportation, and material moving	32.9%	26.7%	29.7%	24.5%	16.9%	16.3%	14.9%	14.6%
<i>Source: 1990 and 2000 U.S. Census.</i>								

Consistent with state and national trends, the “blue-collar” occupations of farming, fishing, and forestry; construction, extraction, and maintenance; and production, transportation, and material moving all declined in the region and the County between 1990 and 2000. The only “blue-collar” occupation to increase as a percentage of the workforce during this period was the service occupation.

According to data in Table C-8, the largest share of the region’s workers were employed in manufacturing in 2000 (24.4%), followed by education, health and social sciences (19.3%) and retail trade (11.9%). As with the occupations above, the rates and rankings of these industry categories are consistent with the County’s, but significantly higher in manufacturing than the state (16%) or national (14.1%) distributions.

In Pennsylvania and the United States, education, health and social sciences was the largest industry in 2000 (21.9% and 19.9%), followed by manufacturing (16% and 14.1%) and retail trade (12.1% and 11.7%).

As with “blue-collar” occupations, the industry categories of agriculture, forestry, fishing, hunting, and mining; construction; manufacturing; and transportation, warehousing, and utilities all declined as a percentage of the workforce between 1990 and 2000. The percentage of workers employed in manufacturing in the region decreased from 32.2% to 24.4% during this period.

Table C-8: Industry Categories 2000

Industry	PERCENT OF TOTAL EMPLOYED							
	Central Carbon County		Carbon County		Pennsylvania		United States	
	1990	2000	1990	2000	1990	2000	1990	2000
Agriculture, forestry, fishing & hunting, and mining	2.2%	1.2%	2.1%	1.2%	2.4%	1.3%	3.3%	1.9%
Construction	7.8%	7.8%	9.8%	8.5%	6.1%	6.0%	6.2%	6.8%
Manufacturing	32.2%	24.4%	29.2%	22.1%	20.0%	16.0%	17.7%	14.1%
Wholesale trade	1.9%	3.1%	2.5%	3.1%	4.3%	3.6%	4.4%	3.6%
Retail trade	17.5%	11.9%	16.1%	12.1%	17.1%	12.1%	16.8%	11.7%
Transportation & warehousing, and utilities	8.8%	7.1%	7.2%	6.7%	6.9%	5.4%	7.1%	5.2%
Information	n.a.	2.4%	n.a.	2.5%	n.a.	2.6%	n.a.	3.1%
Finance, insurance, real estate, rental & leasing	2.9%	3.8%	4.2%	4.2%	6.5%	6.6%	6.9%	6.9%
Professional, scientific, management, administrative, & waste management services	3.2%	5.0%	3.8%	5.8%	6.5%	8.5%	6.6%	9.3%
Education, health & social sciences	15.7%	19.3%	15.0%	19.5%	18.2%	21.9%	16.7%	19.9%
Arts, entertainment, recreation, accommodation & food services	0.8%	6.2%	1.1%	6.5%	1.0%	7.0%	1.4%	7.9%
Public administration	2.2%	4.2%	3.2%	3.8%	4.0%	4.2%	4.8%	4.8%
Other services	4.8%	3.4%	5.9%	4.1%	6.9%	4.8%	8.0%	4.9%

Source: 1990 and 2000 U.S. Census.

Unemployment

The region’s unemployment rate of 5.8% in 2000 was consistent with the rates for Carbon County (5.5%), the state (5.7%), and nation (5.8%) (Table C-9). Since the national economy has changed dramatically since 2000, current unemployment rates from the U.S. Department of Labor were used to update this data. August 2010 unemployment rates indicate that the County’s rate is now somewhat higher (10.6%) than the state (9.2%) and nation (9.6%).

Table C-9: Unemployment Rates 2000 and August 2010

Unemployment Rate	Central Carbon County								
	East Penn	Franklin	Lehigh	Mahoning	Weissport	County	County	Penna.	U.S.
2000 Census	6.6%	4.0%	7.3%	5.3%	10.3%	5.8%	5.5%	5.7%	5.8%
August 2010 ¹	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	10.6%	9.2%	9.6%
						Lehigh County	9.7%		
						Northampton County	9.5%		
						Schuylkill County	10.4%		

1. U.S. Department of Labor, Bureau of Labor Statistics. State and county data is preliminary.
n.d. - no data available

Although current data is not available at the municipal level, it is expected that the region’s unemployment is also at this higher rate since it has been consistent with the County in other economic characteristics. The unemployment rates for counties which border the region (i.e. – Lehigh, Northampton, and Schuylkill) are currently lower than that for Carbon County.

Place of Work and Travel to Work

Since the location of workplaces and the duration of daily commutes help explain where workers live, where the jobs are, and the general traffic patterns of workers getting to work, data on residents’ travel to work are useful in transportation, land use, and economic development planning. People generally prefer to commute no more than a half-hour to and from work, although it is not uncommon to have longer commutes. Employment and commuter patterns have an effect on community life, including traffic flow, energy costs, and time available for family and leisure activities.

Although the region is immediately adjacent to three other counties, a majority (54.6%) of its workers still commute to jobs in Carbon County (Table C-10). Only East Penn Township, which is adjacent to Schuylkill County to the west, and Franklin Township, host to the Mahoning Interchange of the PA Turnpike, had a majority of their workers commuting outside Carbon County in 2000. Blue Mountain, which is situated between the region and Lehigh and Northampton Counties to the south, is a significant physical (and perhaps even a psychological) barrier, with only the Pennsylvania Turnpike’s Lehigh Tunnel and PA Route 248 providing direct access from the area to these counties.

Table C-10: Place of Work 2000

Place of Work	Central Carbon County						
	East Penn	Franklin	Lehigh	Mahoning	Weissport	County	County
Carbon County	509	941	1,477	1,097	110	4,134	12,341
% of workers	45.3%	44.0%	66.4%	58.0%	57.9%	54.6%	47.7%
Different county	606	1,130	742	786	75	3,339	12,865
% of workers	54.0%	52.8%	33.4%	41.5%	39.5%	44.1%	49.7%
Different state	8	70	5	9	5	97	662
% of workers	0.7%	3.3%	0.2%	0.5%	2.6%	1.3%	2.6%
<i>Source: 2000 U.S. Census.</i>							

The average travel time to work for workers in the region (27.6 minutes) was slightly below the maximum preferred travel time of a half-hour (Table C-11). Workers from East Penn and Franklin Townships, given that they had the highest percentage of workers commuting outside Carbon County, experienced the highest average travel times to work (31.2 and 32.4 minutes, respectively).

Over 80% of the region’s workers commuted alone to work in 2000, a lower rate than the County, but higher than the state or nation. Weissport Borough had the lowest driving alone rate (63.7%) and the highest carpooling rate (19.5%) among the five municipalities. Workers living in Lehigh Borough walked to work at a rate (11%) almost as high as those who carpoled (11.1%). Only three (3) workers in the entire region reported using public transportation, including taxi, to travel to work in 2000; all from Weissport Borough.

Table C-11: Travel to Work 2000

Mode of Travel	East Penn		Franklin		Lehigh		Mahoning		Weissport		Central Carbon County		Carbon County	Penna.	U.S.
	#	%	#	%	#	%	#	%	#	%	#	%	%	%	%
Drove alone	956	85.1%	1,669	78.0%	1,708	76.8%	1,640	86.7%	121	63.7%	6,094	80.5%	81.8%	76.5%	75.7%
Carpooled	131	11.7%	401	18.7%	247	11.1%	200	10.6%	37	19.5%	1,016	13.4%	11.9%	10.4%	12.2%
Public transportation	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.6%	3	0.0%	0.7%	5.2%	4.7%
Walked	15	1.3%	10	0.5%	244	11.0%	18	1.0%	17	8.9%	304	4.0%	3.2%	4.1%	2.9%
Other means	0	0.0%	15	0.7%	18	0.8%	15	0.8%	12	6.3%	60	0.8%	0.6%	0.8%	1.2%
Worked at home	21	1.9%	46	2.1%	7	0.3%	19	1.0%	0	0.0%	93	1.2%	1.7%	3.0%	3.3%
Average travel time to work (minutes)	31.2		32.4		21.5		27.4		27.5		27.6		29.2	25.2	25.5
<i>Source: 2000 U.S. Census.</i>															

Housing Characteristics

Housing Units

Housing unit data and trends for each of the region’s municipalities and for Carbon County between 1980 and 2009 are included in Table C-12. The housing stock in the region grew slower (34.6%) than the rate for Carbon County (47.6%) between 1980 and 2009.

Table C-12: Housing Units 1980 to 2009

Municipality	Building Permits					Numeric Increase 1980-2009	% Change 1980-2009
	1980	1990	2000	2000-2009	2009 Estimate		
East Penn	672	775	996	202	1,198	526	78.3%
Franklin	1,250	1,442	1,819	256	2,075	825	66.0%
Lehighton	2,270	2,469	2,546	8	2,554	284	12.5%
Mahoning	1,453	1,617	1,693	174	1,867	414	28.5%
Weissport	215	193	196	0	196	-19	-8.8%
Central Carbon County	5,860	6,496	7,250	640	7,890	2,030	34.6%
Carbon County	23,190	27,380	30,492	3,734	34,226	11,036	47.6%

Source: U.S. Census for 1980, 1990 and 2000. U.S. Census Bureau and municipal permit records for 2009.

Consistent with the population trends, East Penn (78.3%) and Franklin (66%) Townships recorded the highest rates of increase in housing units between 1980 and 2009. Franklin Township experienced the largest numeric increase in new housing units, 825. The number of housing units in Weissport Borough decreased between 1980 and 2009, consistent with its population decline during this same period. The loss of 22 units from 1980 to 1990 was partially the result of conversions to single-family homes and fire destruction. And although Lehighton Borough’s population also declined between 1980 and 2009, the number of housing units increased, illustrating the affects of the trend towards smaller family sizes.

Households

Household size has been declining nationwide in recent decades due to a number of factors: later family formation, declining birth rates, rising divorce rates, and more people living alone. A household is one or more related or unrelated persons living in a single housekeeping (occupied dwelling) unit.

The average household size in the region decreased from 2.62 in 1990 to 2.45 in 2000, a more dramatic decrease than the County, state, or nation (Table C-13). Lehighton Borough, with smaller housing units compared to the other municipalities in the region, had the smallest average household size in 2000 at 2.31. East Penn Township had the largest average household size at 2.59.

Table C-13: Households and Household Size 1990 and 2000

Household Category	Central Carbon County						Carbon County	Penna.	U.S.
	East Penn	Franklin	Lehigh	Mahoning	Weissport	County			
Total Households									
1990	747	1,346	2,368	1,503	189	6,153	n.a.	n.a.	n.a.
2000	947	1,671	2,362	1,543	176	6,699	n.a.	n.a.	n.a.
Average Household Size									
1990	2.78	2.73	2.46	2.68	2.50	2.62	2.55	2.57	2.63
2000	2.59	2.54	2.31	2.47	2.47	2.45	2.44	2.48	2.59
n.a. - data not applicable.									
Source: U.S. Census and Stell Environmental Enterprises, Inc.									

There is some evidence that household sizes may start to increase as multiple generations of the same family move in together. A March 2010 study by the Pew Research Center has found that the number of extended-family households (i.e. – at least three generations) in 2009 increased 30% since the 2000 Census. The trend is fueled in part by the economy, with “baby boomerang” kids returning home after college searching for employment, families who have lost their jobs or homes or both, and grandparents moving in to assist with expenses and the raising of children. If this trend is confirmed with the 2010 Census, it will reduce the need for new housing units to accommodate increases in population.

Residency

To determine the origin of residents and the migration patterns of the population, the 2000 Census queried people regarding their residency in 1995. Nearly two-thirds (66.4%) of the region’s residents lived in the same house in 1995 (Table C-14). This percentage is slightly below that of Carbon County (69.2%), but above the rate for Pennsylvania (63.5%) and significantly higher than the national rate (54.1%).

Table C-14: Residency 1995 to 2000

Residency in 1995	Central Carbon County						Carbon County	Penna.	U.S.
	East Penn	Franklin	Lehigh	Mahoning	Weissport	County			
Same house in 1995	70.9%	70.3%	60.8%	67.7%	59.8%	66.4%	69.2%	63.5%	54.1%
Different house in 1995									
Same county	19.5%	16.7%	28.6%	22.3%	25.2%	22.6%	17.5%	21.7%	24.9%
Same state	8.9%	10.7%	6.6%	8.1%	8.4%	8.4%	9.5%	7.6%	9.7%
Other states	0.4%	1.9%	3.5%	1.6%	5.2%	2.2%	3.4%	5.8%	8.4%
Outside USA	0.3%	0.4%	0.6%	0.3%	1.5%	0.4%	0.4%	1.4%	2.9%
Source: 2000 U.S. Census.									

Coupled with those residents who lived in a different house in 1995 but moved from within Carbon County (22.6%), 89% of the region’s residents in 2000 were residents of the County in 1995. This is consistent with the results of the citizens’ survey in which over 90% of the respondents stated that they were residents of the region for 5 years or more.

Weissport Borough’s residents were the most transient between 1995 and 2000, with less than 60% of its residents living in the same house in 1995; followed by Lehigh Borough at 60.8%. This trend may be due to the existence of more rental housing in the boroughs than the

surrounding townships. Residents of East Penn and Franklin Townships moved the least, with 70.9% and 70.3% of their residents living in the same in 2000 as in 1995, respectively.

Housing Age

The housing stock in the region is comparable in age to that of Pennsylvania, but older than the County and significantly older than the nation as a whole. Over half of the houses in the region are 50 years old or older, compared to 46.4% for Carbon County, 50.8% for the state, and only 30.8% nationally (Table C-15). Weissport Borough’s housing is the oldest in the region, with 91.8% or 180 of its 196 housing units built before 1960. East Penn Township’s housing stock reflects its high rate of population increase since 1950, as two-thirds of its housing has been built within the last 40 years.

Table C-15: Age of Housing

Year Built	Central Carbon County						Carbon County	Penna.	U.S.
	East Penn	Franklin	Lehighton	Mahoning	Weissport	County			
2000 to 2009	16.9%	12.4%	0.3%	9.3%	0.0%	8.1%	10.9%	6.8%	12.0%
1990 to March 2000	18.8%	15.5%	1.8%	10.0%	2.6%	10.0%	9.9%	9.7%	15.0%
1980 to 1989	12.2%	14.1%	7.8%	9.3%	1.5%	10.3%	16.6%	9.4%	13.9%
1970 to 1979	18.7%	15.5%	8.1%	17.0%	3.1%	13.6%	10.6%	12.6%	16.3%
1960 to 1969	6.5%	8.4%	5.3%	11.3%	1.0%	7.6%	5.5%	10.6%	12.1%
1940 to 1959	10.5%	11.5%	20.2%	12.3%	11.7%	14.4%	10.9%	22.6%	17.6%
1939 or earlier	16.4%	22.6%	56.4%	30.8%	80.1%	36.0%	35.5%	28.2%	13.2%

Source: 2000 U.S. Census for housing built March 2000 or older. U.S. Census Bureau and municipal permit data for housing built 2000 to 2009. Note that some duplication of permit data will occur between January and March 2009 due to overlapping data sources.

Housing Types

Consistent with the percentage found in the County, state, and nation, a majority (60.2%) of the housing units in the region in 2000 were single-family detached units, a slight increase from 58% in 1990 (Table C-16). Contrary to the lack of housing diversity in the surrounding townships, where approximately three-quarters of the housing units are single-family detached homes, Lehighton and Weissport Boroughs contain a mix of housing types.

Table C-16: Housing Types

Housing Type	East Penn		Franklin		Lehighton		Mahoning		Weissport		Central Carbon County		Carbon County	Penna.	U.S.
	#	%	#	%	#	%	#	%	#	%	#	%	%	%	%
Single-Family Detached															
1990	605	78.1%	1,014	70.3%	943	38.2%	1,144	70.7%	56	29.0%	3,765	58.0%	60.4%	53.4%	59.0%
2000	765	77.2%	1,362	75.0%	956	37.5%	1,217	71.7%	62	31.6%	4,365	60.2%	62.8%	55.9%	60.3%
Single-Family Attached															
1990	18	2.3%	86	6.0%	679	27.5%	96	5.9%	56	29.0%	935	14.4%	22.0%	18.4%	5.3%
2000	26	2.6%	100	5.5%	749	29.4%	127	7.5%	53	27.0%	1,055	14.6%	20.8%	17.9%	5.6%
Units in Buildings with 2 or More Units															
1990	28	3.6%	112	7.8%	792	32.1%	111	6.9%	71	36.8%	1,115	17.2%	11.3%	21.7%	27.4%
2000	35	3.5%	103	5.7%	816	32.1%	87	5.1%	77	39.3%	1,118	15.4%	11.2%	21.1%	26.3%
Mobile Home, Trailer, Other															
1990	124	16.0%	230	16.0%	55	2.2%	266	16.5%	10	5.2%	686	10.6%	6.3%	6.5%	8.3%
2000	165	16.6%	250	13.8%	25	1.0%	267	15.7%	4	2.0%	711	9.8%	5.2%	5.0%	7.8%

Source: U.S. Census.

Single-family detached, single-family attached (twin), and multi-family (townhouse, duplex, apartments) units each represented roughly a third of the housing stock available in the boroughs in 2000. Weissport Borough had more multi-family units in 1990 and 2000 than single-family detached or attached units.

The region did contain a larger proportion of mobile homes in 1990 and 2000 than the County, state, or nation. Nearly 10% of the region’s housing units were mobile homes, trailers, or other types of units in 2000. Mahoning Township recorded the largest number of mobile homes in 2000 (267), while East Penn Township had the largest percentage of its units as mobile homes (16.6%).

Housing Occupancy

Nearly three-quarters of the occupied housing units in the region were owner-occupied in 2000, a slight increase from 1990 (Table C-17). These rates were less than those from Carbon County, but higher than the state and nation. East Penn Township had the highest owner occupancy rate (88.3%), while only half of Weissport Borough’s occupied units are owner-occupied.

Table C-17: Housing Occupancy

Housing Occupancy	Central Carbon County					Carbon County	Penna.	U.S.	
	East Penn	Franklin	Lehigh	Mahoning	Weissport				
Occupied Housing Units									
1990	747	1,346	2,368	1,503	189	6,153	n.a.	n.a.	n.a.
2000	947	1,671	2,362	1,543	176	6,699	n.a.	n.a.	n.a.
Percent Owner Occupied									
1990	89.3%	82.4%	58.9%	82.0%	51.9%	73.1%	77.9%	70.6%	64.2%
2000	88.3%	83.5%	55.2%	83.7%	50.0%	73.3%	78.2%	71.3%	66.2%
Percent Renter Occupied									
1990	10.7%	17.6%	41.1%	18.0%	48.1%	26.9%	22.1%	29.4%	35.8%
2000	11.7%	16.5%	44.8%	16.3%	50.0%	26.7%	21.8%	28.7%	33.8%
Homeowner Vacancy Rate (%)									
1990	0.7	1.0	1.8	1.0	1.0	n.d.	1.9	1.5	2.1
2000	1.4	1.1	2.0	1.7	1.1	n.d.	2.5	1.6	1.7
Rental Vacancy Rate (%)									
1990	1.2	5.6	3.0	2.5	3.2	n.d.	4.8	7.2	8.5
2000	8.3	4.8	5.9	7.7	7.4	n.d.	10.2	7.2	6.8
Percent of Total Housing Units for Seasonal, Recreational, or Occasional Use									
1990	1.0%	3.1%	0.2%	3.4%	0.0%	1.7%	14.8%	2.9%	3.0%
2000	1.1%	3.4%	0.3%	2.5%	0.0%	1.7%	15.6%	2.8%	3.1%

Source: 1990 and 2000 U.S. Census. n.a. - data not applicable; n.d. - data not available.

Regional level data is not available for vacancy rates; however, the homeowner vacancy rates for the five municipalities in the region ranged from 1.1% to 2% in 2000. These were generally lower than the County (2.5%), state (1.6%), and national (1.7%) rates. Rental vacancy rates were higher, ranging from 4.8% to 8.3%, but were still less than the County (10.2%). A rental vacancy rate in the range of 5 to 7 percent is considered acceptable to allow for market turnover.

Only 1.7% of the region’s total housing units were for seasonal, recreational, or occasional use in 2000, less than the state and national rates and substantially below the County’s rate of 15.6%.

Housing Costs

The cost of housing reflects a number of factors, including the desirable character of the community, quality of its school system, convenient location relative to regional employment

centers, and supply and demand in the housing market. The median value of owner-occupied homes in the region in 2000 was \$92,449 (Table C-18), above the County median of \$82,100, but below the state (\$97,000) and the national (\$119,600) values. More recent data, although limited, indicates that the median value of homes sold in the region in 2009 was \$118,000.

Table C-18: Housing Values and Rental Costs

Housing Costs - 2000	Central Carbon County						Carbon County	Penna.	U.S.
	East Penn	Franklin	Lehigh	Mahoning	Weissport	County			
Median Value - Owner Occupied Units	\$110,100	\$112,100	\$71,900	\$104,300	\$59,300	\$92,462	\$82,100	\$97,000	\$119,600
Median Rent - Renter Occupied Units	\$489	\$516	\$453	\$450	\$473	n.d.	\$458	\$531	\$602
Sale Prices - 2009	Number of Homes Sold: 7								
	Price Range: \$63,000-\$162,000								
	Median Price: \$118,000								

Source: Data for 2000 from U.S. Census, data for 2009 from www.homes.com. n.d. - no data available.

The median housing values in Lehigh and Weissport Boroughs were significantly less (34-47%) than those in the surrounding townships. This may reflect the desirability of the housing age and type, or other social conditions that affect the decisions of home buyers on where to live.

The median values in East Penn, Franklin, and Mahoning Townships were all above \$100,000.

In contrast, median rents were generally consistent throughout the region, ranging from \$450 in Mahoning Township to \$516 in Franklin Township. These rental costs were typically above the County median, but below the state and national levels.

Population and Housing Projections

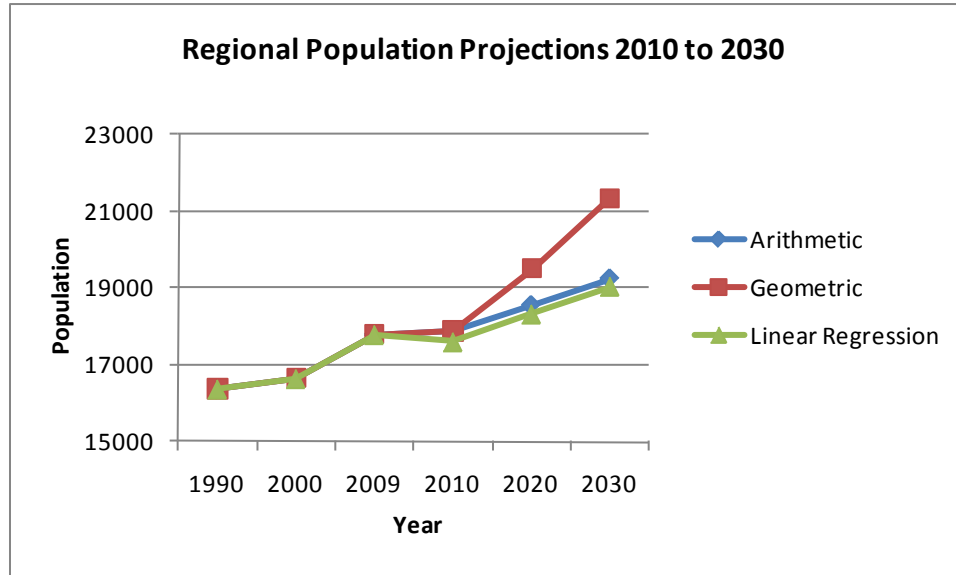
Population and housing projections are necessary to estimate future demands and needs for land, transportation, and community facilities and utilities. Projecting future population and housing of any community cannot be achieved with predictability or certainty. There are numerous external factors, most of which are beyond the control of local municipalities, which can significantly influence population and housing trends. For example, changes in the national or regional economy, housing market, or transportation costs can substantially alter existing local conditions.

Since generating a single population or housing projection is unreliable, several methodologies can be used to improve the reliability of the estimates. For this plan, three different methodologies employing past trends were used to generate the population and housing projections for 2010, 2020, and 2030:

- Geometric projection, which assumes a constant **rate** of or percentage increase,
- Arithmetic projection, which utilizes a constant **numeric** increase; and
- Linear regression, which is a statistical formula commonly used in trending analyzes.

Figure C-1 illustrates the projected population ranges for the region between 2010 and 2030. The region’s population is expected to increase from 17,793 to as high as 21,341 in 2030, an increase of between 7% and 20%.

Figure C-1: Regional Population Projections



Sources: U.S. Census Bureau 1990 to 2009.

The distribution of the regional population projections between the individual municipalities of the region is contained in Table C-19. Please note that these projections are based on the continuation of past trends and do not (and cannot) take into account any changes in the population trends or development patterns that may result with the implementation of this plan or external factors.

Table C-19: Municipal Population Projections

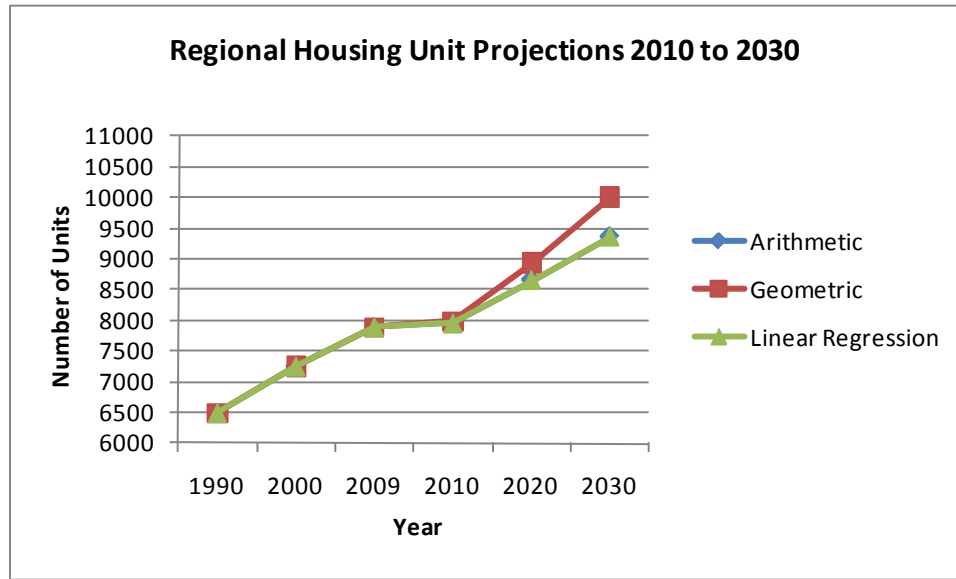
Municipality	U.S. CENSUS		LINEAR REGRESSION			ARITHMETIC			GEOMETRIC			PERCENT CHANGE 2009 to 2030		
	2000	2009 Est.	2010	2020	2030	2010	2020	2030	2010	2020	2030	Linear Regression	Arithmetic	Geometric
East Penn	2,461	2,702	2,668	2,939	3,209	2,727	2,973	3,219	2,755	3,299	3,949	18.8%	19.1%	46.2%
Franklin	4,243	4,846	4,640	5,012	5,384	4,884	5,265	5,646	4,917	5,638	6,465	11.1%	16.5%	33.4%
Lehighton	5,537	5,468	5,412	5,230	5,048	5,449	5,263	5,078	5,453	5,298	5,148	-7.7%	-7.1%	-5.9%
Mahoning	3,978	4,349	4,492	4,794	5,097	4,378	4,666	4,954	4,396	4,874	5,405	17.2%	13.9%	24.3%
Weissport	434	428	394	350	306	424	382	340	425	399	374	-28.4%	-20.6%	-12.6%
Central Carbon County	16,653	17,793	17,606	18,326	19,045	17,862	18,549	19,237	17,946	19,508	21,341	7.0%	8.1%	19.9%

Source: U.S. Census Bureau for 2000 and 2009, Stell Environmental Enterprises, Inc. for 2010 to 2030.

The population projections indicate continued decreases in Lehighton and Weissport Boroughs, while the surrounding townships experience increases in population. If current trends continue, the population of Franklin Township will be the largest in the region by 2030.

Up to 2,116 new housing units are projected in the region by 2030, an increase of as much as 26.8% from 2009 (Figure C-2). Since the projections are based on past trends toward smaller household sizes, any slowing of this decline or stabilizing of the average household size will reduce the number of housing units needed in the future. There is some evidence that the 2010 Census will confirm that this trend has begun.

Figure C-2: Regional Housing Unit Projections



Sources: U.S. Census Bureau 1990 to 2009.

In terms of housing units, Franklin Township is projected to see between 597 and 1,123 new housing units by 2030 (Table C-20). This equates to 41% to 53% of region’s new housing stock! Although projected with the smallest increase in the number of new housing units among the three townships, Mahoning Township will exceed the projections if the number of approved but yet to be developed lots are taken into consideration. The township currently has an inventory of 223 lots just in large-scale developments (i.e. – 10 lots or more) that have yet to be developed due to the slow housing market and economy.²⁰ If built and occupied with the same household size as in 2000 (2.47), these lots alone would produce an additional population of 551 persons. This would surpass the population projected for the township for 2030, except under the geometric projection.

Table C-20: Municipal Housing Unit Projections

Municipality	U.S. CENSUS		LINEAR REGRESSION			ARITHMETIC			GEOMETRIC			NUMERIC CHANGE 2009 TO 2030		
	2000	2009 Est.	2010	2020	2030	2010	2020	2030	2010	2020	2030	Linear Regression	Arithmetic	Geometric
East Penn	996	1,198	1,192	1,377	1,562	1,216	1,398	1,579	1,230	1,562	1,984	364	381	786
Franklin	1,819	2,075	2,095	2,388	2,682	2,103	2,388	2,672	2,122	2,605	3,198	607	597	1,123
Lehighton	2,546	2,554	2,607	2,704	2,801	2,564	2,662	2,760	2,565	2,676	2,791	247	206	237
Mahoning	1,693	1,867	1,864	2,000	2,135	1,881	2,024	2,167	1,885	2,071	2,274	268	300	407
Weissport	196	196	191	186	180	195	189	182	195	189	184	-16	-14	-12
Central Carbon County	7,250	7,890	7,950	8,655	9,360	7,960	8,660	9,360	7,984	8,938	10,006	1,470	1,470	2,116

Source: U.S. Census Bureau for 2000 and 2009, Stell Environmental Enterprises, Inc. for 2010 to 2030.

The number of housing units in Weissport Borough is shown as continuing to decrease, while those in Lehighton Borough are projected to increase between 206 and 247 units by 2030.

These projections serve primarily to show what the region’s population and housing distribution will be in the future if the loss of population in the boroughs continues in place of suburban

²⁰ Mahoning Township, October 26, 2010.

sprawl in the surrounding townships. In addition to the limitations inherent in using past trends to project future population and housing, the following points need to be emphasized:

- Weissport Borough cannot continue to experience declines in population and number of housing without its economic viability or sustainability as a municipality being jeopardized.
- Future changes in the average household size will affect the demand for housing units in the region to accommodate increases in population. Any slowing in the trend towards smaller household sizes or a stabilization in the average size will reduce the number of new housing units needed in the future.
- The eventual development of the current inventory or backlog of building lots in the townships will affect the actual number of housing units and future population in the region.
- Successful implementation of the regional comprehensive plan is necessary if the past trends in population and housing declines in the boroughs are to be reversed.

Summary and Planning Implications

A review of the population and housing characteristics and trends presented above reveal the following implications for planning in Central Carbon County:

- The Boroughs of Lehighton and Weissport have experienced declining populations, while the surrounding townships have seen increases in population and housing units. If current trends continue, Franklin Township will receive roughly 50% of the new housing units and its population will be the largest in the region by 2030. People leaving the boroughs to live in less dense developments in the townships creates inefficiencies in the use of land, infrastructure, and the road system, leading to the loss of valuable agricultural and open space lands, higher costs for public services, and increased traffic congestion. If this trend is to be avoided, efforts will need to be made to revitalize the boroughs and make them an attractive and desirable place to live.
- The average household size has been declining nationwide and in the region, resulting in higher demands for housing and the need for smaller housing units. It is unknown whether this trend will continue, as recent evidence indicates an increase in extended families and larger households.
- Consistent with the national trend, the population of the region is aging and is expected to continue to do so into the foreseeable future as the “baby boomers” begin to retire in 2011. This will increase the demand for services specific to the elderly population, such as medical services and housing for the elderly.
- The aging of the region’s population can be somewhat offset if young professionals and families, numbers of which have decreased, can be attracted to the area through expanded

job opportunities, downtown revitalization, and the increase in leisure and cultural activities.

- The number of school-aged children in the region has steadily decreased, therefore reducing or eliminating the need for additional schools or the expansion of existing schools.
- The minority population in the region is extremely low, thereby reducing the demand for specialized social and educational services that they may require.
- The income levels for residents of Lehighton and Weissport Boroughs, and the region as a whole, are below those for the County, state, and nation; while the poverty rate for families with children are generally higher. These conditions indicate the need for increased job opportunities, higher paying jobs for working families, and borough revitalization.
- Reflected in its income levels, the region has lower education levels than the County, state, and nation. If the area is to compete for jobs and attract new industries and businesses, educational programs and levels will need to improve. Emphasis should be placed on vocational skills needed in today's economy (e.g. – information technology, communications, health services).
- As with Carbon County, a majority of the region's workers are employed in "blue-collar" occupations, with the largest share employed in manufacturing and transportation. This strength should be promoted as a way to attract new industries and businesses, but recognizing that the diversity of jobs in the area needs to increase to avoid reliance or dependency on manufacturing jobs. Manufacturing jobs have decreased as a percentage of the workforce and will likely continue to decline in the future. Local adjustments must therefore be made to respond to this likelihood. To increase job diversity, businesses involved in professional, scientific, financial, insurance, and real estate activities need to be attracted to the area.
- The current unemployment rate in Carbon County is significantly higher than the state and national levels, reinforcing the need to attract new industries and businesses to the area that provide a diversity of job types.
- A majority of the region's workers commute to jobs in Carbon County and have an average commute time of less than a half-hour. If this trend is to continue, new employment opportunities need to be located convenient to existing population centers (e.g. – Lehighton Borough). Home occupations and home businesses should also be encouraged as a way to reduce traffic congestion.
- A vast majority of workers in the region drive to work alone. Less than 20% carpool, use public transportation, walk, work at home, or use other means. New industries and businesses will need to be located convenient to Lehighton and Weissport Boroughs if this trend is to be reversed and traffic congestion reduced.

- Lehighton and Weissport Boroughs contain significantly higher proportions of attached and multi-family housing units, renter-occupied housing, and affordable housing than the surrounding townships. This diversity of affordable housing should be promoted and encouraged as a way to attract young families and professionals into these areas.
- The age of the housing stock in the boroughs is also significantly older than the surrounding townships. Since both homeowner and renter vacancy rates in 2000 were within normal ranges, it appears that deteriorated and dilapidated housing are not a serious problem yet. However, efforts are needed to ensure that housing conditions do not deteriorate to the point of adversely affecting housing values and attempts at neighborhood revitalization.
- The number of older homes in the region is an opportunity to consider historic preservation programs as a way to improve housing conditions and make the area more attractive for economic development. Investment in improving historic buildings helps both housing conditions and the local economy, while also celebrating the history and heritage of the region.

Appendix D – Inventory of Background Data and Analysis

This Appendix includes the detailed inventory of background data and its analysis that directly relates to the regional issues and focus areas contained in Chapter 4. Additional data and information can be found in the separately published Transportation Plan and Park, Recreation, Greenway, and Open Space Plan which were prepared concurrently with this Comprehensive Plan. Along with the public participation summary in Chapter 2 and the goals and objectives in Chapter 3, this information was used to develop the recommendations, implementation strategies, and action items of the in Chapter 5 of the Plan.

Principle 1 – Ensure the Economic Vitality of the Region

Background data and information on the existing economic conditions in the region highlight the strengths and weaknesses in the area economy. This information provides a basis for recommendations to expand employment opportunities and income levels for area residents and improve the quality of life in the region.

Comments from Public Participation Process

A major issue raised during the public participation process for this Plan (Planning Committee meetings, key person interviews, citizen survey, and public meetings) is the need to encourage economic development and improve employment opportunities. Development/redevelopment of vacant industrial sites, particularly the Packerton rail yard property, and the revitalization of downtown Lehighton Borough are of particular concern.

Summary of Economic Census Data

Detailed analysis of U.S. Census data on the economic characteristics of the region is included in Appendix C. A summary of this data and the planning implications follows:

- The income levels for residents of Lehighton and Weissport Boroughs, and the region as a whole, are generally below those for the County, state, and nation; while the poverty rate for families with children are higher. These conditions indicate the need for increased job opportunities, higher paying jobs for working families, and borough revitalization.
- Reflected in its income levels, the region has lower education levels than the County, state, and nation. If the area is to compete for jobs and attract new industries and businesses, educational programs and levels need to improve. Emphasis should be placed on vocational skills needed in today's economy (e.g. – information technology, communications, and health services).
- Similar to Carbon County, a majority of the region's workers are employed in "blue-collar" occupations, with the largest share employed in manufacturing and transportation. This strength in traditional job sectors should be promoted to attract new industries and businesses, but recognizing that the diversity of jobs in the area needs to increase to avoid reliance or dependency on manufacturing jobs. Manufacturing jobs have decreased as a percentage of the workforce and will likely continue to decline in the future. To increase job diversity, businesses involved in professional, scientific, financial, insurance, and real estate activities need to be attracted to the area.

- The current unemployment rate in Carbon County is significantly higher than the state and national levels, reinforcing the need to attract new industries and businesses to the area that provide a diversity of job types, while also improving the overall skill and educational levels of workers.

Two of the County’s five largest employers are located in the region, Gnaden Huetten Memorial Hospital (ranked 2nd) and Lehigh Area School District (ranked 5th). The Gnaden Huetten Memorial Hospital campus is owned and operated by Blue Mountain Health System, which also owns the Summit at Blue Mountain nursing and rehabilitation center and the Palmerton Hospital campus, the 10th largest employer in the County. The major employers in the County are concentrated in recreation, medical services, government, and education (Table D.1-1).

Table D.1-1: Major Employers in Carbon County

Rank	Company Name	Municipality	Business/Product
1	Kovatch Corp.	Nesquehoning Borough	fuel & fire trucks
2	Gnaden Huetten Memorial Hospital	Lehigh Area School District	medical services
3	Vacation Charter, Ltd.	Kidder Township	recreation
4	Carbon County Court House	Jim Thorpe Borough	government
5	Lehigh Area School District	Lehigh Area School District	education
6	Jim Thorpe Area School District	Jim Thorpe Borough	education
7	Blue Mountain Ski Area	Lower Towamensing Township	recreation
8	State of Pennsylvania	various	government
9	Blue Ridge Cable Technologies	Palmerton Borough	communications
10	Palmerton Hospital	Palmerton Borough	medical services

Source: Center for Workforce Information and Analysis, 2009 annual data; based on number of employees.

Local housing prices can provide a competitive advantage in attracting companies and their workers to the area. Current information indicates that the average sales price in the region (\$147,182) is significantly below that in adjacent municipalities in Lehigh County (i.e. – Heidelberg Township, Slatington Borough, and Washington Township), where the average sale price is \$203,647 (Table D.1-2). Compared to adjacent municipalities in Carbon County, the region’s average sales price is higher.

Table D.1.2: Average Sales Prices 2009 to 2010

Location	Number of Sales	Sales Range	Average Sales Price
Central Carbon County	11	\$63,000-\$245,000	\$147,182
Other Carbon County	11	\$59,000-\$224,000	\$101,182
Lehigh County	17	\$48,000-\$420,000	\$203,647
Schuylkill County	2	\$77,000-\$220,000	\$148,500

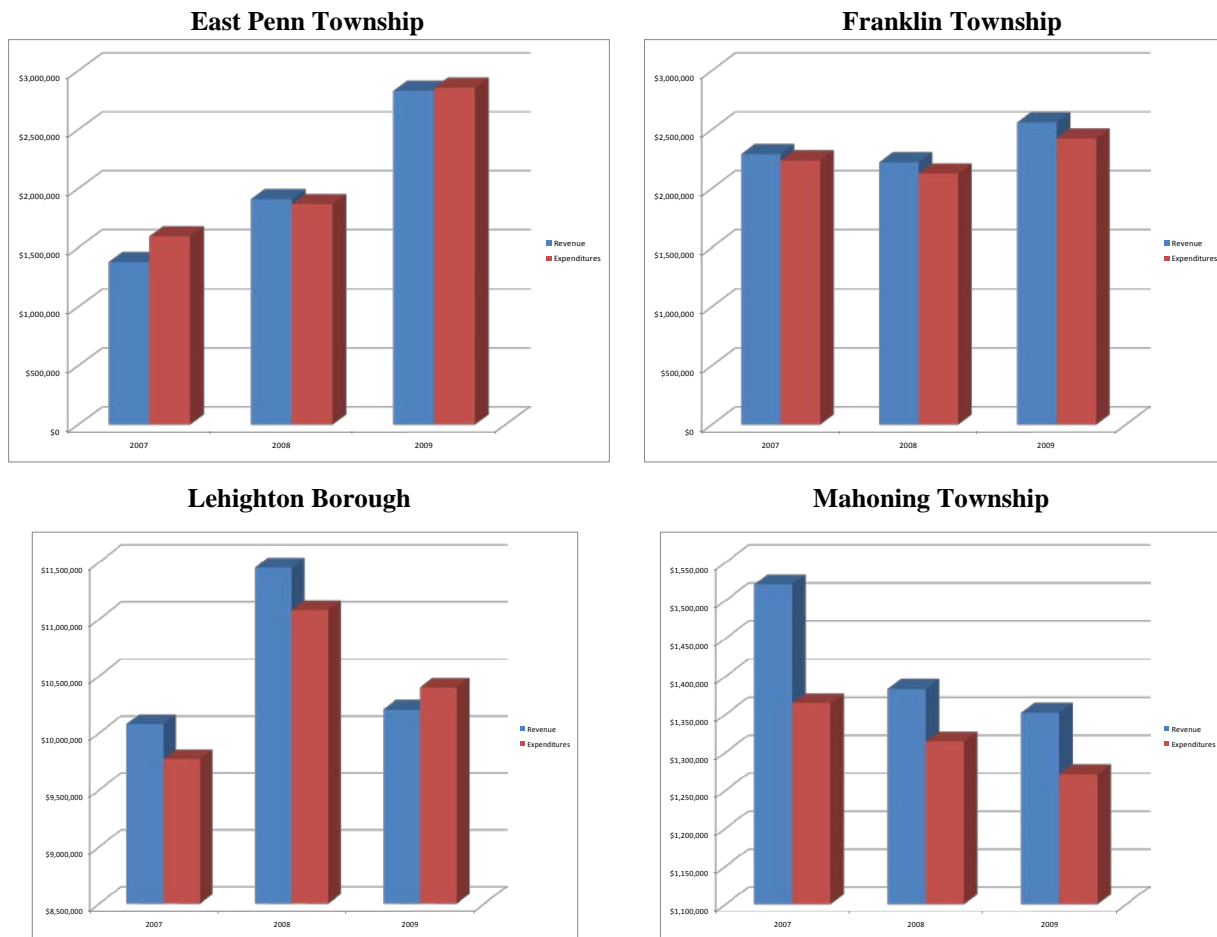
Source: <http://www.homes.com>, April 2010 and October 2010. Sale dates range from April 2009 to August 2010.

Municipal Financing and Budgeting

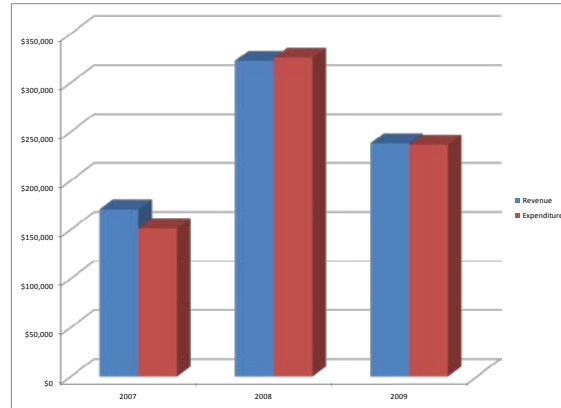
Municipal finances are linked to planning and development in many ways. Population growth creates needs for additional services and facilities, and municipal finances must keep pace to meet residents and the business community’s expectations. As the pace of development changes, municipal revenue sources also change. Revenue from transfer taxes and permit fees may be abundant during periods of rapid development, but these sources decrease as development slows.

The trends in municipal revenues and expenditures between 2007 and 2009 are shown in Figure D.1.-1. The budgets for Franklin Township and Lehighon and Weissport Boroughs fluctuated during this period, with the boroughs’ budgets peaking in 2008. Mahoning Township’s budget decreased over these three years, while those for East Penn Township increased consistently.

Figure D.1.-1: Municipal Revenue and Expenditures 2007-2009



Weissport Borough



Municipal Revenues

The general fund is the principal operating fund in each of the member municipalities' budgets. General fund revenues come primarily from the earned income tax, real estate tax, and real estate transfer tax; except in Lehighton Borough, where its electric service was the largest source of revenue in 2009 (Table D.1-3). Revenues from the electric company (\$5,898,579) were higher than its expenses (\$5,406,744), therefore providing a \$491,835 profit to help supplement the remaining budget.

Table D.1-3: Municipal Revenues and Expenses 2009

	East Penn Township	Franklin Township	Lehighton Borough	Mahoning Township	Weissport Borough
Revenues					
Taxes	\$624,168	\$989,266	\$865,777	\$857,387	\$85,752
Intergovernmental	\$1,484,031	\$373,594	\$1,042,756	\$285,577	\$60,640
Utilities/Charges for Services	\$34,843	\$914,898	\$7,935,421	\$76,072	\$44,649
Licenses, Permits, & Fees	\$60,853	\$408	\$29,614	\$53,765	\$6,787
Fines, Forfeitures & Penalties	\$16,299	\$35,722	\$113,218	\$23,874	\$7,553
Interest & Rent	\$39,023	\$107,370	\$172,261	\$25,803	\$2,303
Debt Proceeds	\$567,600	n.a.	n.a.	n.a.	n.a.
Other Revenues	\$2,594	\$139,579	\$45,022	\$29,648	\$30,299
Total Revenues	\$2,829,411	\$2,560,837	\$10,204,069	\$1,352,126	\$237,983
Expenditures					
General Government	\$424,460	\$205,346	\$852,072	\$131,869	\$28,260
Public Safety	\$200,639	\$637,244	\$854,973	\$423,447	\$62,654
Highways & Streets	\$375,416	\$513,068	\$933,865	\$407,165	\$43,182
Other Public Works	\$1,224,699	\$836,716	\$6,354,248	n.a.	\$61,383
Culture and Recreation	\$79,017	\$20,179	\$272,786	\$4,478	\$7,725
Debt Service	\$468,023	\$29,726	\$579,045	\$39,511	\$10,905
Other Expenditures	\$83,535	\$182,544	\$551,622	\$264,634	\$22,421
Total Expenditures	\$2,855,789	\$2,424,823	\$10,398,611	\$1,271,104	\$236,530
Surplus or Deficit	-\$26,378	\$136,014	-\$194,542	\$81,022	\$1,453
Notes:	Largest revenue (\$1,251,750) from state grants, largest expenditures (\$1,224,699) for wastewater collection & treatment	Utility revenues & other public works expenditures related to sewer & trash service	Largest revenue & expense from electric & sewer fund	Other expenditures include \$201,111 for employee benefits	

Source: Municipal annual audit and financial reports, 2009.

Other tax sources for the region’s municipalities include grants and loans, the amusement tax (Mahoning Township), local services tax, mechanical devices tax (Mahoning Township), occupation tax, and per capita tax. East Penn Township received \$1,251,750 in grants in 2009, the majority of which (\$1,100,000) was from PennVest for sewer construction. The township also received \$567,600 in PennVest loans for the project.

Reflective of the national economy, revenues in Lehighon Borough, Mahoning Township, and Weissport Borough decreased from 2008 to 2009. East Penn Township’s revenues increased primarily as a result of the substantial amount of grants and loans received in 2009. Franklin Township experienced an increase in revenues between 2008 and 2009 in all categories except licenses, permits, and fees.

Weissport Borough has the highest real estate tax millage in the region at 8.9 mills, while Mahoning Township currently has the lowest rate at 3.75 mills (Table D.1-4). In addition to the second highest local services tax, Mahoning Township is the only municipality in the region with an amusement tax and mechanical devices tax. In comparison, local real estate tax rates in adjacent municipalities in Carbon County range from 2 mills in Lower Towamensing and Towamensing Townships to 13.6 mills in Summit Hill Borough (Table D.1-5).

Table D.1-4: 2010 Municipal Tax Rates – Central Carbon County

Taxing Authority	East Penn Township	Franklin Township	Lehighon Borough	Mahoning Township	Weissport Borough
Municipal					
Amusement (%)	n.a.	n.a.	n.a.	10	n.a.
Earned Income (%)					
Non-Resident	1.0	1.0	1.0	1.0	n.a.
Resident	0.5	0.5	0.5	0.5	0.5
Local Services Tax (\$)	52.00	10.00	10.00	50.00	52.00
Mechanical Devices (\$)	n.a.	n.a.	n.a.	25.00	n.a.
Occupation (Mills)	n.a.	n.a.	6	n.a.	3
Per Capita (\$)	5.00	5.00	n.a.	5.00	5.00
Real Estate (Mills)	6.135	6.837	4.250	3.750	8.900
County					
Real Estate (Mills)	6.893	6.893	6.893	6.893	6.893
School District					
Earned Income - Resident (%)	0.5	0.5	0.5	0.5	0.5
Occupation (Mills)	25	25	25	25	25
Per Capita (\$)	10.00	10.00	15.00	10.00	10.00
Real Estate (Mills)	46.57	46.57	46.57	46.57	46.57
Total					
Dollars (\$)	67.00	25.00	25.00	90.00	67.00
Mills (Real Estate)	59.598	60.300	57.713	57.213	62.363
Mills (Other)	25	25	31	25	28
Percent (%)	2.0	2.0	2.0	12.0	1.0
Notes:		R.E. Tax includes 6.3 mills for general purpose and .537 mills for municipal building			R.E. Tax includes 8.74 mills for general purpose and .16 mills for street lighting
<i>Source: Pennsylvania Department of Community and Economic Development and Carbon County Office of Economic Development, September 7, 2010.</i>					

Table D.1-5: 2010 Municipal Tax Rates – Adjacent Municipalities

Taxing Authority	Bowmans- town Borough	Jim Thorpe Borough	Lower Towamen- sing Township	Palmerton Borough	Parryville Borough	Penn Forest Township	Summit Hill Borough	Towamen- sing Township
Municipal								
Amusement (%)	n.a.	n.a.	n.a.	n.a.	n.a.	2.5	n.a.	n.a.
Earned Income (%)								
Non-Resident	0.5	n.a.	1.0	1.0	n.a.	0.5	1.0	1.0
Resident	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Local Services Tax (\$)	5.00	5.00	47.00	47.00	10.00	n.a.	5.00	5.00
Mechanical Devices (\$)	n.a.	n.a.	n.a.	74.00	n.a.	n.a.	n.a.	n.a.
Occupation (Mills)	2	0.0055	n.a.	n.a.	1	n.a.	2	n.a.
Per Capita (\$)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Real Estate (Mills)	10.005	6.4	2.0	8.27	10.5	3.0	13.6	2.0
County								
Real Estate (Mills)	6.893	6.893	6.893	6.893	6.893	6.893	6.893	6.893
School District								
Amusement (%)	n.a.	2.5	n.a.	n.a.	n.a.	2.5	n.a.	n.a.
Earned Income -	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Resident (%)								
Local Services Tax (\$)	5.00	5.00	5.00	5.00	n.a.	10.00	5.00	5.00
Mechanical Devices (\$)	n.a.	36.00	n.a.	n.a.	n.a.	36.00	n.a.	n.a.
Occupation (Mills)	n.a.	n.a.	n.a.	n.a.	25	n.a.	2.5	n.a.
Per Capita (\$)	10.00	5.00	10.00	10.00	10.00	5.00	10.00	10.00
Real Estate (Mills)	43.638	42.52	43.638	43.638	46.57	42.52	55.69	43.638
Total								
Dollars (\$)	25.00	56.00	67.00	141.00	25.00	56.00	25.00	25.00
Mills (Real Estate)	60.536	55.813	52.531	58.801	63.963	52.413	76.183	52.531
Mills (Other)	2	0.0055	n.a.	n.a.	26	n.a.	4.5	n.a.
Percent (%)	1.5	3.5	2.0	2.0	1.0	4.0	2.0	2.0

Source: Pennsylvania Department of Community and Economic Development and Carbon County Office of Economic Development, September 27, 2010.

The municipal tax burden is a small percentage of the overall tax burden for the region’s residents. The Lehigh Area School District’s real estate tax rate is 46.57 mills, while Carbon County’s is an additional 6.893 mills. Real estate rates in surrounding school districts in Carbon County range from 42.52 mills (Jim Thorpe Area School District) to 55.69 mills (Panther Valley School District).

In addition to tax revenue, the State Liquid Fuels Fund provides a portion of the State gas tax to local municipalities for road maintenance based on the total length of local roads in the municipality.

Municipal Expenditures

Municipal general fund expenditures fall into six (6) general categories: general administration, public safety, public works, culture and recreation, debt service, and miscellaneous expenditures. The largest expenses in most municipalities are police protection and road maintenance (Table D.1-3). Factors causing increases in these services include costs of personnel, benefits, equipment, insurance, energy costs, and the need to expand as population and road mileage increase.

Roads, streets, and other public works (e.g. – sewer collection and treatment, trash service) represented the largest expenditures in all municipalities in the region in 2009 except for

Mahoning Township, where public safety (i.e. – police protection) was slightly higher. Lehigh Township's largest expense was associated with its electric service.

While only Weissport Borough experienced a slight budget deficit in 2008 (\$3,208), East Penn Township's and Lehigh Township's expenditures were higher than their revenues in 2009. The budget shortfalls were absorbed through a reduction in year end fund balances.

Future Trends in Municipal Revenues and Expenses

During the current recession and housing slump, revenues from such sources as building permits, real estate transfer taxes, and earned income taxes have decreased. As the economy recovers and the region becomes more developed, changes can be expected in both revenues and expenditures. Below is a summary of changes that can be expected:

Revenues in the townships will increase from fees as new development returns and through increases in assessed property values. Revenue trends in the boroughs will depend on the rate and degree of revitalization and whether population declines continue. However, real estate and wage tax revenues will be largely offset by increased demands for expanded public services, road and infrastructure expansion and maintenance, and educational costs. Aging facilities, not only in the boroughs but also the townships, will require more frequent repair or outright replacement (e.g. – Lehigh Township water lines).

Land development and zoning ordinances can help reduce long term municipal financial burdens by considering the impact of development on municipal services. The region can also benefit from the experience of more developed areas by not relying on the temporary income of development to fund expenses that are on-going and which will continue when development slows.

Land Use Potential for Economic Development

Over 8% of the region's land area is currently zoned for uses associated with job creation and economic development such as commercial, industrial, recreation, and institutional activities. These areas are concentrated along Routes 209, 443, 895, and the Lehigh River (Map D.1-1). Of the 3,335.6 acres zoned for such uses, 914 acres are currently vacant or undeveloped (Table D.1-6). Subtracting the areas unbuildable due to the presence of environmental features such as floodways, hydric soils, slopes over 25%, and wetlands, 650.4 acres are available for development. Although this total does not include parcels that may be under-utilized or not used to their full economic potential, this does indicate a significant potential for economic development in the region.

Table D.1-6: Acres Available for New Economic Development

	Acres in Commercial/Industrial/Institutional Zoning Districts	Acres Vacant in Commercial/Industrial/Institutional Zoning Districts	Acres of Primary Conservation Areas in Vacant Parcels	Acres Available for New Economic Development
East Penn Township	990.3	216.6	64.7	151.9
Franklin Township	520.1	170.2	35.1	135.1
Lehigh Township	226.8	57.2	7.8	49.4
Mahoning Township	1,537.4	461.4	153.4	308.0
Weissport Borough	61.0	8.6	2.6	6.0
Central Carbon County	3,335.6	914.0	263.6	650.4

Source: Municipal zoning ordinances and Carbon County GIS Department, November 2010.

Mahoning Township contains the largest amount of land zoned for economic development activities (1,537.4 acres), the most acres vacant in these districts (461.4), and the most land available for new economic development uses (308 acres). The second highest amount in each category is located in East Penn Township.

Keystone Opportunity Zones²¹

In an effort to spur investment and economic development in areas where little or no development has occurred, Pennsylvania created the Keystone Opportunity Zone program in 1999. Keystone Opportunity Zones (KOZs) are defined, parcel-specific areas where certain state and local taxes can be waived, abated, or exempted. In a KOZ, the following taxes may be eligible for exemptions, deductions, abatements, or credits:

- State Taxes
 - Corporate Net Income Tax
 - Capital Stock & Foreign Franchise Taxes
 - Personal Income Tax (Partnerships & Sole Proprietors)
 - Sales & Use Taxes
 - Bank Shares & Trust Company Shares Taxes
 - Alternative Bank & Trust Company Shares Tax
 - Mutual Thrift Institutions Tax
 - Insurance Premiums Tax

- Local Taxes
 - Earned Income/Net Profits Taxes
 - Business Gross Receipts, Business Occupancy, Business Privilege & Mercantile Taxes
 - Local Real Property Tax
 - Sales & Use Taxes

Projects in KOZs also receive priority consideration for assistance under Pennsylvania Department of Community and Economic Development (DCED) programs, as well as community building initiatives. KOZ projects that are approved for Pennsylvania Industrial Development Authority (PIDA) or small business financing receive the lowest interest rate extended to borrowers.

Two (2) KOZs are currently located within the region: the Packerton Yards and the Semanoff Property (Map D.1-2). Unfortunately, the KOZ designation for both of these sites expires December 31, 2010. An option to replace the benefits of KOZ designation is to consider a Local Economic Revitalization Tax Assistance (LERTA) program for the properties.

Local Economic Revitalization Tax Assistance (LERTA)²²

One major deterrent to improving deteriorated business properties is the increased property assessment and taxes that result from the improvements. The higher taxes often discourage business property owners from making improvements. The Pennsylvania Local Economic

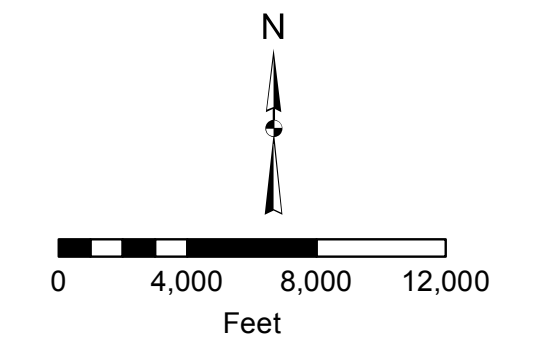
²¹ <http://www.newpa.com> and <http://www.philakoz.org>, September 22, 2010.

²² www.bcrda.com/zones/LERTA.doc, October 1, 2010.

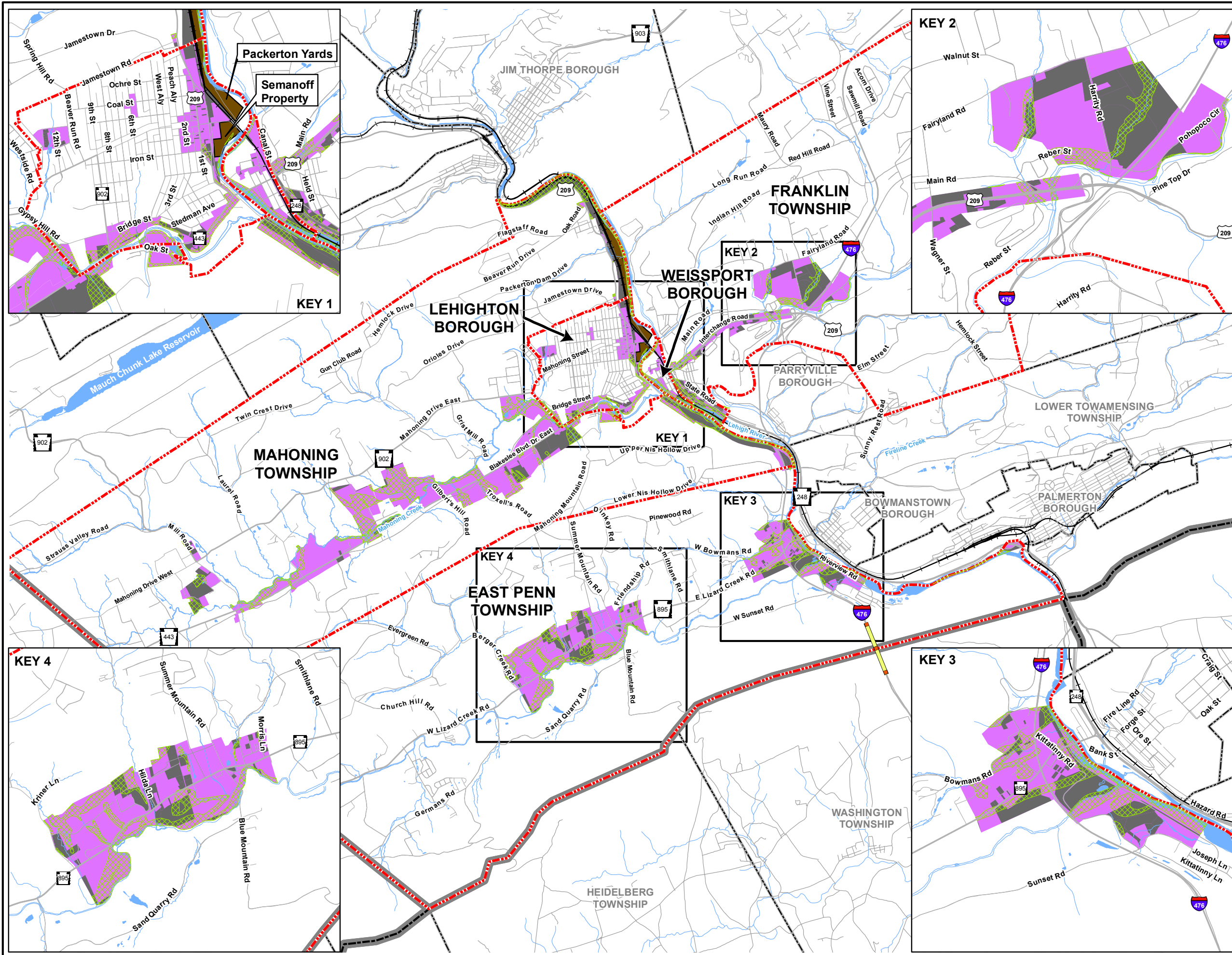
Map D.1-1: Land Use Potential For Economic Development

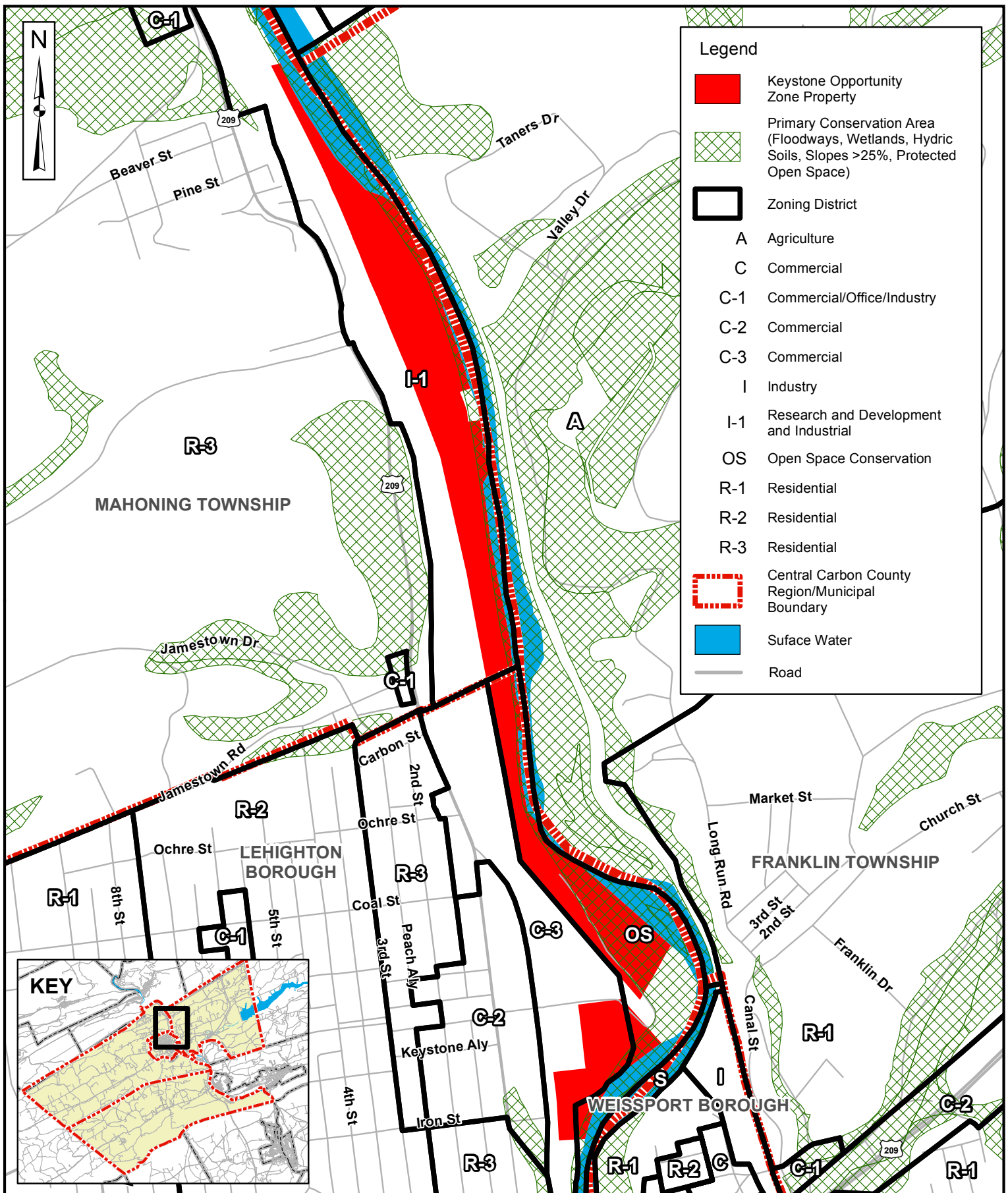
Legend

- Commercial/Industrial/
Institutional Zoning District
- Developed Parcel
- Vacant Parcel
- Primary Conservation Area
(Floodways, Wetlands, Hydric
Soils, Slopes >25%, Protected
Open Space)
- Keystone Opportunity
Zone Property
- Municipal Boundary
- Central Carbon County
Region/Municipal
Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



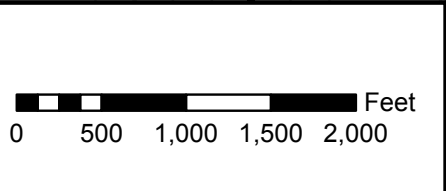
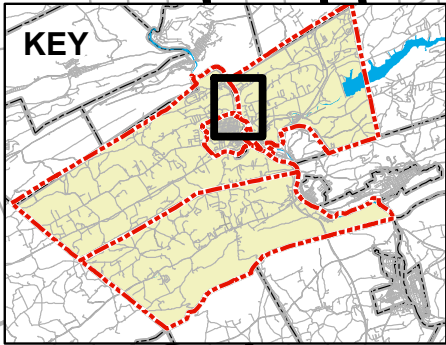
25 East Main Street
Elverson, PA 19520
(610) 286-0100
www.stellee.com





Legend

- Keystone Opportunity Zone Property
- Primary Conservation Area (Floodways, Wetlands, Hydric Soils, Slopes >25%, Protected Open Space)
- Zoning District
- A Agriculture
- C Commercial
- C-1 Commercial/Office/Industry
- C-2 Commercial
- C-3 Commercial
- I Industry
- I-1 Research and Development and Industrial
- OS Open Space Conservation
- R-1 Residential
- R-2 Residential
- R-3 Residential
- Central Carbon County Region/Municipal Boundary
- Surface Water
- Road



**Map D.1-2:
Keystone Opportunity
Zone Properties**

Stell Environmental Enterprises, Inc.
...The Difference!
 25 East Main Street (610) 286-0100
 Elverson, PA 19520 www.stellee.com

Revitalization Tax Assistance (LERTA) Act allows local taxing authorities to exempt improvements to business property if such property is located in a deteriorated area.

Any county, city, borough, incorporated town, township, institutional district, or school district can elect to participate in this program. Tax exemptions may be based on actual improvement costs or uniform maximum costs set by the municipality for period of up to 10 years. LERTA offers the potentially viable and effective tool for local governments to revitalize economically deteriorated areas and to increase job opportunities, as well as ultimately increasing the tax revenue needed to fund local government services.

Financial and Technical Assistance²³

In addition to the tax abatement programs summarized above, there are a wide variety of other financing and technical assistance opportunities available from the state aimed at helping new business start-ups or expansion of existing businesses (see Appendix E). There are also the following resources available only to Carbon County small businesses, industries, and entrepreneurs:

- **Carbon County Economic Development Corporation (CCEDC)** is a non-profit organization providing a full range of services including business technical assistance and site selection. CCEDC administers Pennsylvania Industrial Development Loans (PIDA) for Carbon County. CCEDC is also involved in the creation of jobs for low-income residents and future expansion with the Small Business Revolving Loan Fund to assist small service and manufacturing firms.
- **Carbon County Economic Development Office**, through the Carbon County Commissioners, encourages the creation and retention of jobs and future expansion with the Small Business Expansion Loan Fund to assist small service and manufacturing firms.
- The **Carbon County Redevelopment Authority Loan Pool** makes targeted loans up to \$10,000 to promote the adaptive reuse and rehabilitation of existing building stock and restoration of historic buildings.
- **Carbon County's CareerLink** provides a single point of contact to connect job-seekers with job-providers.
- The **Manufacturer's Resource Center** provides assistance to help improve productivity and quality, lower costs, and improve manufacturers' competitiveness. Services include business planning, workforce development, technology improvement, and other personalized support.
- The **Northeastern Pennsylvania Alliance (NEPA)** serves a seven-county area and offers an array of economic development incentives including loans, training, and technical assistance. NEPA is one of seven regional agencies called Local Development Districts

²³ *Carbon County, Pennsylvania: A Resource Guide*, Carbon County Chamber of Commerce.

(LDDs) designated to help coordinate community and economic development activities in Pennsylvania.

- The **Wilkes University’s Small Business Development Center** meets locally with start-up and existing businesses to assist in developing business and marketing plans, as well as the interpretation of environmental and export/import regulations.
- The **Job Training Partnership** will reimburse employers for 50% of wages paid to new employees while they learn new skills and responsibilities.
- **Façade and Design Assistance Grants** up to \$2,500 from the Delaware & Lehigh National Heritage Corridor may be available to targeted commercial property and business owners in Carbon County.
- The **Carbon County Chamber of Commerce** was created in 2004 through the visioning efforts of Carbon County Partners for Progress. It offers numerous benefits including educational opportunities, a business directory, and a group health insurance program. The Chamber has six regional “councils” that advance the needs of the County as a whole. The Lehigh Area Council was formed in 1956 and is dedicated to helping business growth and development in the region.

Carbon County Partners for Progress²⁴

Carbon County Partners for Progress is a grassroots organization with the goal of uniting Carbon County communities in order to improve the quality of life. Established in 1998 to create an economic development strategy, the group has discovered many common issues the economy shares with health, education, community, and the environment. It developed and published a Strategic Action Plan in 2001 designed as a “roadmap” for growth and development in the County. Its goals are to:

- Increase public awareness of all community resources;
- Increase awareness of the need to preserve, sensitively develop and improve the environment for residents and visitors; and to identify needs, uncover economic development opportunities and convey these to our elected officials to inspire action;
- Support, create or enhance the availability of health, social and transportation services for all Carbon County residents;
- Create a consortium of leaders in order to foster inter-community cooperation and conserve local resources; and
- Identify what education opportunities are available for all residents, as well as to offer, promote and enhance these and help create others through reform and local resources.

²⁴ *Carbon County, Pennsylvania: A Resource Guide*, Carbon County Chamber of Commerce.

NEPA Comprehensive Economic Development Strategy (CEDS) Survey

As the designated Economic Development District for the seven county northeastern Pennsylvania region by the U.S. Department of Commerce, the Northeastern Pennsylvania Alliance (NEPA) is in the process of developing a regional Comprehensive Economic Development Strategy (CEDS) for the next five years. As part of this strategy development process, a survey was conducted in late 2008 to determine public opinion regarding issues facing the region and which economic development strategies could be used in addressing those issues. Although relatively few of the respondents resided in Carbon County (i.e. – 6 out of 159), the results of the survey are consistent with the comments received during the public participation process for this Plan:

- The three primary issues facing northeastern Pennsylvania were: 1) number of quality job opportunities, 2) low income levels, and 3) outdated infrastructure.
- The types of business development that local economic development organizations should try to attract to the region included: 1) advanced technology, 2) manufacturing, and 3) e-commerce.
- The types of business development that local economic development organizations should try to retain in the region included: 1) manufacturing, 2) advanced technology, and 3) distribution/warehousing.
- The most important strategy statements were: 1) retaining existing businesses, 2) long-term energy considerations, and 3) attracting new businesses. Developing a tourism-based industry ranked as the least important out of 26 statements.
- The primary issues influencing private sector investment and business development in the region were: 1) location, 2) strong work ethic, and 3) highway system.

Wall Street West²⁵

Wall Street West was a not-for-profit partnership in the ten-county northeastern Pennsylvania region (i.e. – Berks, Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, and Wayne) created in response to the tragic events of September 11, 2001 and the August 2003 massive power outage in New York and New Jersey. The initiative was intended to create a redundant, instantaneous data transmission network as a back-up location for Wall Street firms and provide continuity, recovery, and data replication for the financial services industry. The goal was to establish supplemental facilities in northeastern Pennsylvania, fund the education and training of a growing workforce, and expand the competitiveness and potential of these industries.

In February 2006, Wall Street West received federal support through a four-year \$15 million Workforce Innovation in Regional Economic Development WIRED grant for education and job training. WIRED grants funded the Wall Street West Academy and the Innovation Institute Professional Development and Curriculum Planning Project at the Lehigh Carbon Community College.

²⁵ <http://www.wallstreet.west.org>, March 25, 2010.

Another goal of Wall Street West was to build the infrastructure and business plan to attract and retain financial services sector to the region, including the installation of a fiber optic cable from New York directly to northeastern Pennsylvania. However, this cable was never installed due to lack of funds, changes in brokerage firms' business practices, and the recent financial sector meltdown.²⁶

The Wall Street West program has been transferred to the Northeastern Pennsylvania Technology Institute (NPTI) in Scranton to develop a national center for business continuity.

Regional Conference on Transportation and Land Use for Economic Development – Northeast Region²⁷

In May 2005, the Pennsylvania State Association of Township Supervisors (PSATS) coordinated a Regional Conference on Transportation and Land Use for Economic Development which was jointly hosted by PennDOT, DEP, DCNR, DCED, the Pennsylvania Department of Agriculture, the Governor's Office, and the State Planning Board. As a follow-up to the Statewide Action Plan of 2004, more than 50 regional representatives developed a common vision for the Northeast Region. The objectives and action steps to realize that vision were identified and a regional-specific plan to integrate transportation and land use for economic development was developed.

Consistent with the Wall Street West initiative, one of the five (5) primary objectives identified at the conference was to "improve technology infrastructure (e.g., fiber optics, WI-FI, and high speed Internet) to bring economic development into existing communities". Specific action steps to implement this objective were:

- Analyze what technology infrastructure exists in the region.
- Pursue federal, state, and local avenues of funding for the study and its implementation.
- Incorporate current workforce development initiatives and expand/create new venues for curriculum development, funding for courses, and training sites.
- Create a needs analysis from companies willing or considering locating in the region.
- Streamline the delivery of projects at the regional levels.
- Develop a regional technology infrastructure plan and implement the plan.
- Market and publicize the region's technology improvements.

Another primary objective identified at the conference was "attract jobs", with the following action steps:

- Review municipal/county plans to achieve consistency.
- Mandate training from the state.
- Develop continuing education programs.
- Train officials, the public, and the media so that they understand the region's problems and potential solutions.
- Market training with "real life" stories to help spice up what might be perceived as a dull topic.

²⁶ Email correspondence from Gerald A. Ephault, Regional Manager-Pocono Northeast Region, Ben Franklin Technology Partners, October 6, 2010.

²⁷ *Regional Conference on Transportation and Land Use for Economic Development – Northeast Region*; May 19, 2005; Wilkes-Barre, Pennsylvania.

- Look at programs in areas that are working (e.g., Monroe County) for opportunities to develop best practices.
- Increase county resources in terms of staff and funding.
- Create informal relationships with the economic development community to discuss/include their view on planning.
- Through the increased education, incentives, and consistency, work to improve the quality of life that will help to attract jobs.

Delaware and Lehigh National Heritage Corridor

The heritage area movement led to the designation of the Delaware and Lehigh River corridors as a National Heritage Area in 1988 and a State Heritage Park in 1993. This strategy does not focus on the traditional preservation of historic resources, but on creating sustainable local economics as a means of resource protection by revitalizing “main streets”, bringing back urban neighborhoods, and protecting farmland through landscape-scale conservation, interpretation, and tourism.²⁸ The categories of conservation practices include the following:

- Community Revitalization
- Cultural Conservation
- Economic Development
- Education/Interpretation
- Heritage Tourism
- Historic Preservation
- Natural Resource Conservation
- Recreation
- Stewardship Building
- Strategic Engagement

As a result of a reorganized Main Street program, the D&L National Heritage Corridor was selected as the location for Pennsylvania’s pilot regional revitalization project, the Corridor Market Town Initiative in 2000. Lehighton Borough, along with the Boroughs of White Haven, Lansford, Jim Thorpe, Palmerton, and Slatington, were chosen as the primary Market Towns within the corridor. During the five year project, outcomes included a net increase in the number of businesses; the rehabilitation and adaptive reuse of landmark historic buildings; interpretive brochures, signage, and historic markers; and façade improvements. Specific projects in the region included restoration and improvements to the former Lehighton High School (Lehighton Borough Annex) and façade improvements along 1st Street in Lehighton Borough.

To help revitalize the main streets and downtown commercial areas of the Market Towns, the D&L National Heritage Corridor also worked with the Heritage Conservancy to develop design guidelines for downtown areas. This booklet illustrates architectural styles prevalent in the towns and how to preserve and improve the aesthetics of downtown areas by using appropriate architectural details for such features as signs, lighting, windows, doors, and exterior materials.

²⁸ *Best Practices in Heritage Development from the National Heritage Areas*, National Park Service and the Alliance of National Heritage Areas, Fall 2005.

Pocono Forest and Waters Conservation Landscape Initiative (CLI)²⁹

The Conservation Landscape Initiative (CLI) is a geographically-based strategy for natural resource stewardship and advocacy in key landscapes across Pennsylvania where there are strong natural assets and local readiness and support for land conservation, locally-driven planning, and community economic revitalization efforts. The Pocono Forests and Water CLI, which includes the counties of Carbon, Lackawanna, Luzerne, Monroe, Pike, and Wayne, is one of seven in the state. The natural beauty of this area, coupled with its proximity to large urban centers, have made it a destination for millions of people to visit and recreate over many generations.

Wilderness-oriented pursuits such as hunting, fishing, hiking, biking, birding, canoeing, rafting, snowmobiling, cross-country skiing, and numerous other low-impact recreational activities are available. In addition, the various lakes, ski areas, and resorts attract visitors seeking less rustic vacations.

The Pocono Forests and Waters CLI seeks to protect and enhance the resources that are the foundation for the nature-based recreation and sporting experiences and opportunities of all residents and visitors of the region that focus on:

- Conserving the character of this diverse and beautiful region;
- Increasing outdoor recreation and sporting opportunities;
- Tapping into the abundant nature-based tourism market;
- Education and outreach to local communities, municipal governments and organizations; and
- Community economic and workforce development

The Pennsylvania Department of Conservation and Natural Resources (DCNR) is facilitating the efforts of the CLI program with many partners including federal, state, and local governments; land trusts, trail groups, and other non-profit organizations; regional tourism boards; and local businesses. The goals of this initiative are to:

- Identify and conserve important landscape areas for acquisition and easements so as to increase the public and private land base under conservation.
- Facilitate local government decision making to conserve land and revitalize communities.
- Engage the business sector to leverage financial resources and political will to enhance and conserve natural and recreational resources.
- Improve community awareness of and engagement in conservation and restoration of local natural resources.
- Increase cooperation among various state and local governmental agencies and private entities with an interest in conserving natural resources and sustainable development.

Summary of Economic Background Data and Information

Reflective of the national economy, revenues in Lehighon Borough, Mahoning Township, and Weissport Borough decreased from 2008 to 2009. East Penn Township's revenues increased primarily as a result of the substantial amount of grants and loans received in 2009, sources of revenue that can be relied on consistently. While only Weissport Borough experienced a slight budget deficit in 2008 (\$3,208), East Penn Township's and Lehighon Borough's expenditures were higher than their revenues in 2009. The budget shortfalls were absorbed through a

²⁹ <http://www.pecpa.org>, October 21, 2009.

reduction in year end fund balances, a trend that is not sustainable without reducing important reserve funds or incurring additional debt.

Comparatively lower income levels in Lehigh and Weissport Boroughs indicate the need for increased job opportunities, higher paying jobs for working families, and revitalization of the region's urban areas. If the area is to compete for jobs and attract new industries and businesses, the region's below average educational levels will need to improve. Emphasis should be placed on vocational skills needed in today's economy (e.g. – information technology, communications, health services).

The major employers in the County are concentrated in the fields of recreation, health services, government, and education. These employment areas should serve as a foundation for economic development in the region.

From the public's perspective, the major issue in the region is also the need to encourage economic development and to improve employment opportunities. This includes the development/ redevelopment of vacant industrial sites, particularly the Packerton rail yard property, and the revitalization of downtown Lehigh Borough. This is enforced by a recent NEPA regional economic development survey, which also indicated the need to update the region's aging infrastructure. The 2005 Regional Conference on Transportation and Land Use for Economic Development and the Wall Street West initiative both emphasize the need to improve the region's technology infrastructure.

Over 650 acres of vacant land in the region are currently zoned for economic development activities such as commercial, industrial, and institutional uses.

The types of business development that should be attracted or retained in the region, according to the NEPA survey, are advanced technology, manufacturing, distribution/warehousing, and e-commerce. The region's "blue-collar" work ethic should be promoted as a way to attract new industries and businesses, but recognizing that the diversity of jobs in the area needs to increase to avoid reliance or dependency on manufacturing jobs. To increase job diversity, businesses involved in professional, scientific, financial, insurance, and real estate activities need to be attracted to the area. Numerous sources of financial and technical assistance are available from the state and Carbon County to help attract and retain businesses in the region.

The tax rates of the individual municipalities in the region and the Lehigh Area School District are competitive with surrounding municipalities and school districts in Carbon County. The region's total real estate tax rate is actually at a competitive advantage when compared to the Panther Valley School District, which has the highest rate in Carbon County. Average home prices are more affordable in the region than in adjacent municipalities in Lehigh County.

Principle 2 – Improve Mobility in the Region

Background data and analysis can be found in Chapter 2 of the *Central Carbon County Regional Transportation Plan*, which was prepared concurrently with this Comprehensive Plan.

Principle 3 – Protect and Improve the Character and Sense of Community in the Region

Background data and information on the existing land use patterns and housing conditions form the basis for regional planning policies and are the foundation for future goals and objectives.

Comments from Public Participation Process

The public participation process for this Plan (Planning Committee meetings, key person interviews, citizen survey, and public meetings) indicated that housing conditions in the region need to improve, particularly in the Boroughs of Lehighton and Weissport. The need to preserve historic structures and provide for the housing needs of the elderly were also noted. Flexible design standards which recognize landowners' property rights and which allow for a combination of development options and affordable housing should be encouraged for new developments.

Summary of Housing Data

A detailed analysis of U.S. Census data on regional housing characteristics is included in Appendix C. In summary:

- The Boroughs of Lehighton and Weissport have experienced declining populations, while the surrounding townships have seen increases in population and housing units. If current trends continue, Franklin Township will receive roughly 50% of the new housing units and its population will be the largest in the region by 2030. Migration of residents from the denser boroughs to less dense developments in the townships results in valuable agricultural and open space lands lost to development, inefficient expansion of infrastructure and roadways, higher costs for public services and greater traffic congestion. Efforts to revitalize the boroughs as attractive and desirable places to live will be needed if this trend is to be reversed.
- The average household size has been declining nationwide and in the region, resulting in higher demands for housing and the need for smaller housing units. It is unknown whether this trend will continue, as recent evidence indicates an increase in extended families and larger households.
- Consistent with the national trend, the population of the region is aging and is expected to continue to do so into the foreseeable future as the “baby boomers” begin to retire. This will increase the demand for services specific to the elderly population, such as medical services and housing for the elderly.
- A vast majority of workers in the region drive to work alone. Less than 20% carpool, use public transportation, walk, work at home, or use other means. New industries and businesses will need to be located convenient to Lehighton and Weissport Boroughs if alternative travel modes are to help reduce future traffic congestion.
- Lehighton and Weissport Boroughs contain significantly higher proportions of more affordable housing options, including attached and multi-family housing units and renter-occupied housing, than the surrounding townships.
- The age of the housing stock in the boroughs is also significantly older than the surrounding townships. Based on both homeowner and renter vacancy rates in 2000, which were within normal ranges, it appears that housing demand is strong and that deteriorated and dilapidated housing are not a serious problem. However, efforts to

ensure that housing conditions do not deteriorate to the point of adversely affecting housing values and jeopardize attempts at neighborhood revitalization are needed.

- The number of older homes in the region is an opportunity to consider historic preservation programs as a way to improve housing conditions and make the area more attractive for economic development. Investment in improving historic buildings helps both housing conditions and the local economy, while also celebrating the history and heritage of the region.

Existing Land Use and Issues

Agriculture

Agricultural land occupies a significant portion of the region and plays an important role in the local economy and landscape. Numerous tree farms totaling 1,727 acres comprise the agricultural land and are concentrated along Evergreen Road, Mahoning Drive/PA Route 902, and Indian Hill Road. Other types of agricultural activity are scattered throughout the area (Map D.3-1).



Private property rights and the desire of farmers and large landowners to realize an adequate return on their investment were major concerns expressed during the public participation phase of this Plan (see Chapter 2). The Growing Greener: Conservation by Design and Transfer of Development Rights (TDR) are two concepts that can help achieve this goal, as well as help preserve valuable agricultural land.

Conservation by Design and other conservation zoning and subdivision options can preserve large areas of open space or agricultural lands while allowing the landowner to develop the remaining acreage. TDR programs allow the development rights attached to parcels in a preservation zone to be sold and transferred to areas where adequate infrastructure and services already exist or can be more easily expanded.

















Zoning ordinances can also be used to preserve prime agricultural soils and permit accessory uses that support or supplement farming, including agricultural retail uses and seasonal events such as hayrides and corn mazes.

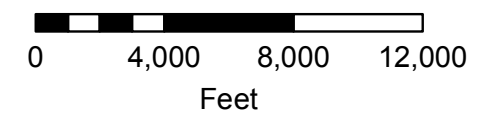
County and state programs also encourage the continuation of active farming through:

- Agricultural Security Areas – All three (3) townships within the region have established Agricultural Security Areas, which property owners may voluntarily enter into if the minimum criteria for property size and prime agricultural soils are met. Enrollment gives farmers “right to farm” protection against nuisance ordinances and makes them eligible for conservation easements through state and county agricultural land preservation programs. A total of 7,269 acres are enrolled in Agricultural Security Areas in the region.

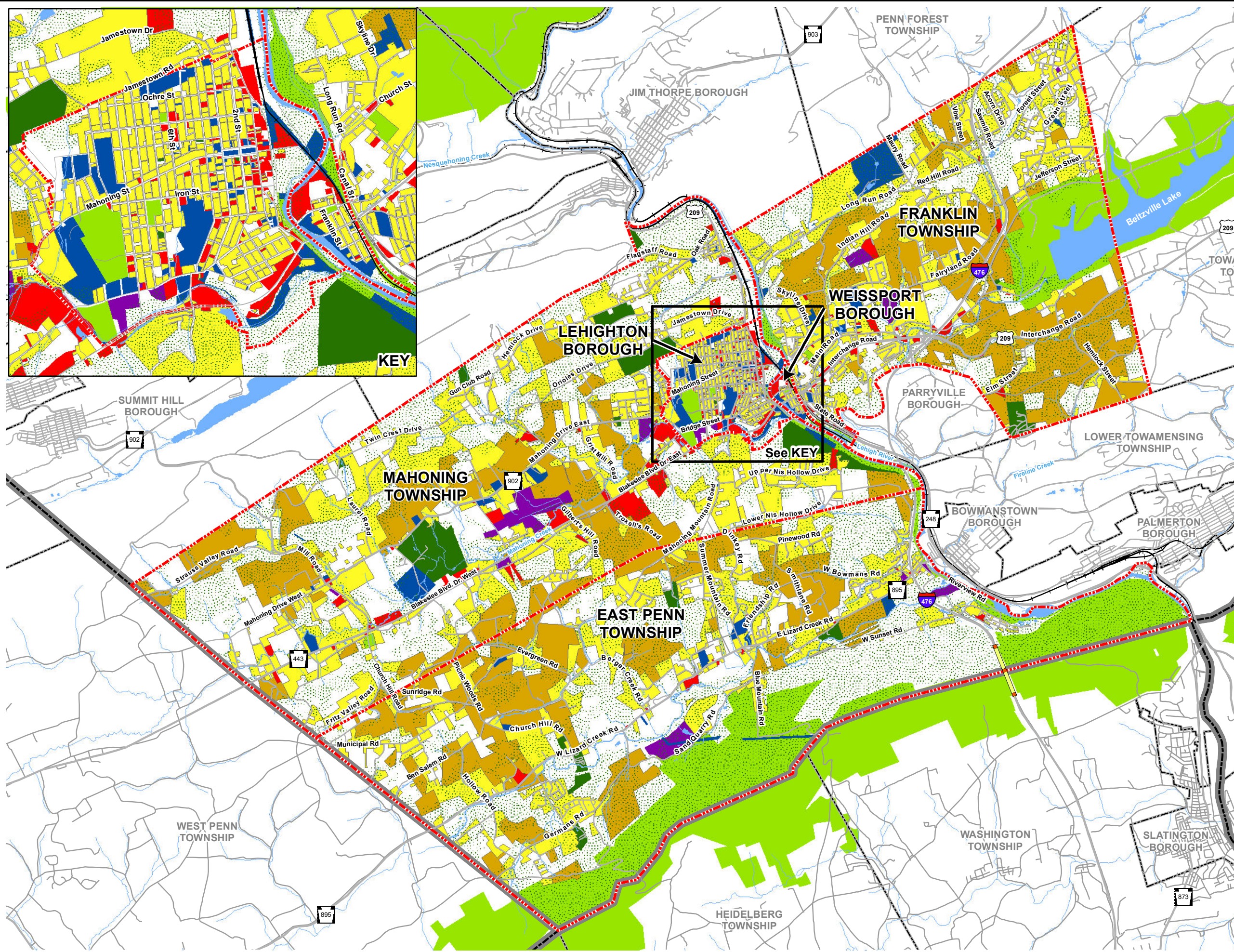
Map D.3-1: Existing Land Use

Legend

-  Agricultural
-  Residential
-  Office/Commercial
-  Industrial
-  Public Recreation
-  Private & Commercial Recreation
-  Institutional/Utilities
-  Vacant/Undeveloped
-  Woodlands
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
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- Acts 319 and 515 - Allow preferential tax assessments to taxpayers owning land in agricultural, forest, or open space uses. There are total of 13,493 acres enrolled in Act 319/515 in the region, or one-third of the total land area.
- Conservation Easements – Farmers who participate in state and county agricultural land preservation programs sell the development rights to their farms and sign easements that prevent development in perpetuity. Conservation easements have been placed on 502 acres in the region.

More detailed information on these programs are included in *Principle 4 – Conserve the Region’s Natural and Cultural Resources*.

Residential Use

As previously noted, population continues to migrate from the Boroughs of Lehigh and Weissport into the townships. The predominant development pattern is larger lot, suburban-type sprawl. A sprawling development pattern contributes to the loss of farmland and open space, increases impacts to the road system, requires the expensive extension of public services, and further stresses businesses in Lehigh’s commercial business district.

Age-Restricted Housing

Age-restricted housing is a relatively new form of residential development resulting from an increase in the number of aging baby boomers and from favorable federal laws that allow for deviations from the Fair Housing Act. Age-restricted housing typically restricts occupancy to at least one householder who is 55 or older, with restrictions on residents under 18.

It needs to be emphasized that while these units may be popular among baby boomers, the need for new units in the future may wane as the number of baby boomers declines and demand decreases. This raises a question regarding the permanency of these types of developments and the associated impacts on the community. While these developments attract households without school-aged children, thereby contributing tax revenue without adding to educational costs, their income and contributions to the region’s tax base will decline as the residents retire. Future demographic changes may make age restrictions difficult to maintain if large numbers of these communities are constructed, leading to a transition of these units to families and younger residents.

Commercial Use

Commercial uses in the region are composed of retail stores, service businesses, and offices. The majority of commercial activity is located in Lehigh Borough, along PA Route 443 in Mahoning Township and along US Route 209 between the Turnpike interchange and PA Route 248. Lehigh’s central business district has declined over the years as the Borough’s population has decreased and strip commercial uses have increased, particularly along Route 443. The relocation of Walmart further west on Route 443 continues this trend. Redevelopment and revitalization of the downtown district is critical to re-establishing a more balanced distribution of retail and businesses services to the region’s population.

Industrial Use

The Jake Arner Memorial Airport and related facilities is the large concentration of industrial uses in the region. Industrial uses generally require convenient access to major transportation facilities that offer for easy access to materials and supplies transported by truck, rail, and/or air. Maintaining industrial areas near transportation corridors also reduces truck traffic through residential neighborhoods or on secondary roads not designed or constructed to carry large vehicles and heavy loads. Heavy industrial uses may also generate environmental and noise pollution concerns for nearby residents.

Quarries are frequently a land use issue in communities. Quarries produce materials necessary for construction activities and they contribute to the area economy, however, their operations can be incompatible with surrounding residential land uses and can affect local groundwater levels. A sand quarry is currently located on Sand Quarry Road within the R Rural zoning district of East Penn Township, but experiences limited activity. A stone quarry is situated on Hollow Road, also in the R Rural zoning district of East Penn Township, but is closed due to Township litigation. Quarries are not a permitted use in the R Rural zoning district.

Institutional and Utility Uses

Institutional uses in the region are primarily associated with the Lehigh Area School District and the Gnadon Huetten Memorial Hospital. Enrollment projections do not indicate that any of the schools need to expand in the near future. However, the hospital may need to expand as demand for services for the region's aging population increase. The primary impacts of the hospital's possible expansion are traffic and parking issues and temporary noise pollution. The challenge will be to accommodate this growth so that it is compatible with adjacent residential areas.

Utility uses include parcels used for water supply reservoirs by the Lehigh Water Authority and are located in Franklin Township.

Public Recreation

Beltzville State Park, D&L Trail, Lehigh Canal Park, Lehigh Gap Wildlife Refuge, National Park Service/Appalachian Trail, State Game Lands, and municipal parks comprise public recreation uses. A total of 3,809 acres, or 9.4% of the region, are included in this category.

Private and Commercial Recreation

Campgrounds, golf courses, hunting clubs, rod and gun clubs, private fishing lakes, and private resorts such as the Flagstaff Mountaintop Park/Resort and the Ukrainian Homestead are categorized as private and commercial recreation uses. A detailed list of these types of facilities is included in the inventory of background data for *Principle 5 – Build and Maintain a Livable Community with Good Services and Facilities* and comprise a total of 1,659 acres in the region.

County Plans

Carbon County is preparing a comprehensive plan and a greenway and open space plan concurrently with this Plan. Recommendations of the Central Carbon County comprehensive plan are to be incorporated into the County plans.

Principle 4 – Conserve the Region’s Natural Features and Cultural Resources

The natural and cultural resources of the Central Carbon County region are critical in how land uses and the economy have evolved in the area. These resources also provide the framework for preserving valuable community amenities.

The Pennsylvania Municipalities Planning Code (MPC) requires that comprehensive plans address the protection of natural and historic resources to the extent not pre-empted by federal or state law. This includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, floodplains, unique natural areas, and historic sites.

Important Natural Features and Resources

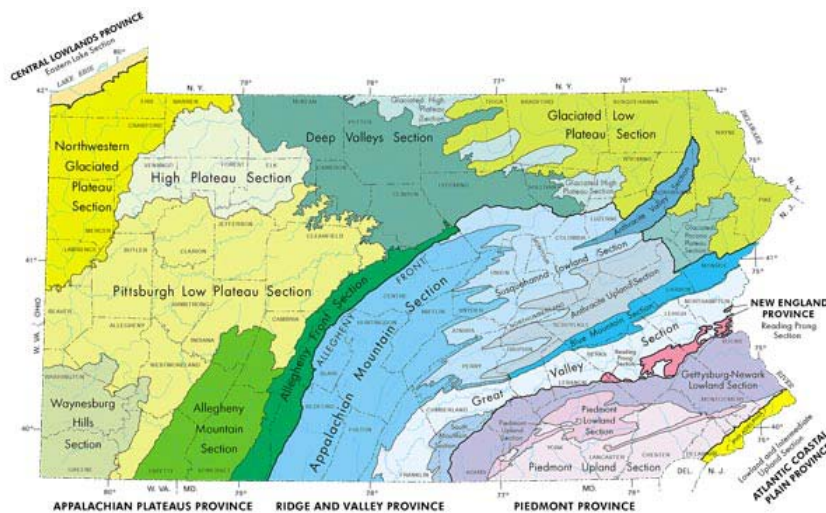
Protecting important natural features means being a steward of the land and using the most suitable land for development. It involves identifying areas where development makes sense and setting rules for protection of more eco-sensitive lands as part of the development process. Without this protection, valuable natural resources can be lost or destroyed, development and maintenance costs can become unsustainable, and human life can be negatively affected.

Physiography and Geology

Physiography is defined by the characteristic landscapes and distinctive geologic formations that comprise each area. Physiography relates in part to the region’s topography and climate, factors which influence soil development, hydrology, and land use patterns of an area. Geology and bedrock type affect future planning and land use decisions through impacts on water supply, topography, and soil characteristics.

The Central Carbon County planning region falls within the Blue Mountain Section of the Ridge and Valley Province (Map D.4-1). This area is characterized by Blue Mountain, a large linear ridge to the south and a valley to the north that widens eastward and includes the low linear ridges of Mauch Chunk Ridge, Indian Hill, and Mahoning Mountain/Hill and swallow valleys that separate them. The region is bordered to the south by the Great Valley Section and to the north by the Anthracite Upland Section.

Map D.4-1: Physiographic Provinces of Pennsylvania



Source: Pennsylvania Department of Conservation and Natural Resources (DCNR).

The Blue Mountain Section is formed on sandstone, siltstone, and shale, with some limestone and conglomerate. Very resistant sandstones occur at the crests of the Blue Mountain, with shales and siltstones occurring on the slopes and valleys.³⁰

The region's geology is comprised of two (2) geologic periods. The older Silurian Period, during which Blue Mountain was formed, occurred 417 to 443 million years ago; while the remainder of the region was created during the Devonian Period (354 to 417 million years ago).³¹ Fossils from the Devonian Period have been found at Beltzville State Park.³²

Unique Geologic Resources

One of many geologic formations from the Devonian Period is the Marcellus Shale Formation. Significant amounts of natural gas exist in the Marcellus Shale Formation which underlies western, northern, and northeastern Pennsylvania, including Carbon County. The extent of this formation at the surface of the bedrock in the region is shown in Map D.4-2 and is roughly aligned with the Lizard, Mahoning, and Pohopoco Creeks. The map also includes a cross-section of the geology through the region to show where this formation occurs further beneath the surface. It indicates that the Marcellus Shale Formation underlies a significant portion of the region at a depth of over 4,000 feet.

Although the Marcellus Shale Formation is found within the region, research suggests that the areas with the greatest production potential are where the thickness of organic-rich shale within the formation is greatest. The thickness of this organic-rich area in the Marcellus Shale Formation in Carbon County, however, is currently unknown.³³ Since Carbon County and the region are located along the outer edge of the formation, natural gas production may not be economically viable in this area. As of May 2010, no gas wells or permits for gas wells have been issued in Carbon County.³⁴ If gas exploration and production in Carbon County becomes economically viable, municipalities should consider the consequences of this activity due to potential ground and surface water pollution.

Public comments received during the public participation component of this Plan indicated that coal reserves may remain in the area for future mining activities. According to information gathered from PaDEP, there are approximately 7 billion tons of minable anthracite coal reserves in eastern Pennsylvania.³⁵ However, none of the geologic formations underlying the region are associated with coal reserves. The closest coal formations are north of the region in Jim Thorpe, Nesquehoning, and Summit Hill Boroughs.

Two (2) sites in the region are identified in the *Outstanding Scenic Geological Features of Pennsylvania*, published by the Pennsylvania Geological Survey in 1979 (Part One) and 1987 (Part Two). The document illustrates a total of 514 geological features of interest as scenic natural resources throughout the state.³⁶

³⁰ <http://www.dcnr.state.pa.us/topogeo/map13/13bms.aspx>.

³¹ *Geologic Map of Pennsylvania*, Pennsylvania DCNR, Bureau of Topographic and Geologic Survey, 2007.

³² <http://www.dcnr.state.pa.us/polycomm/june/por61397.htm>.




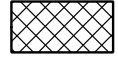





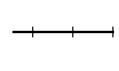

³³ <http://geology.com/articles/marcellus-shale.shtml>, March 3, 2010.

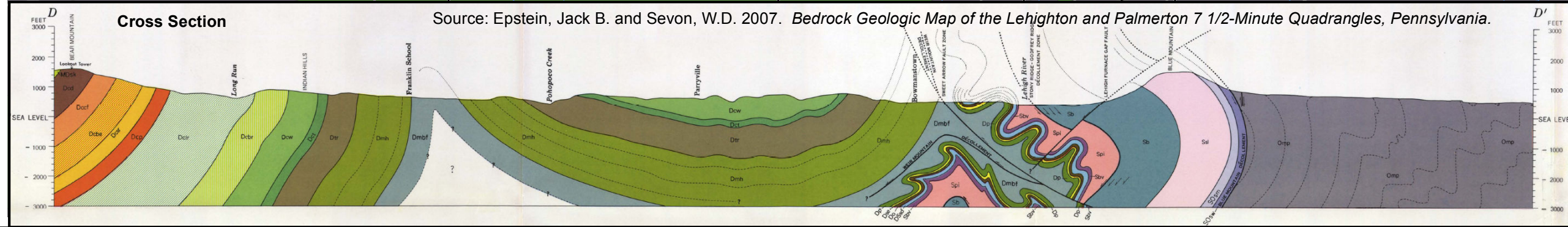
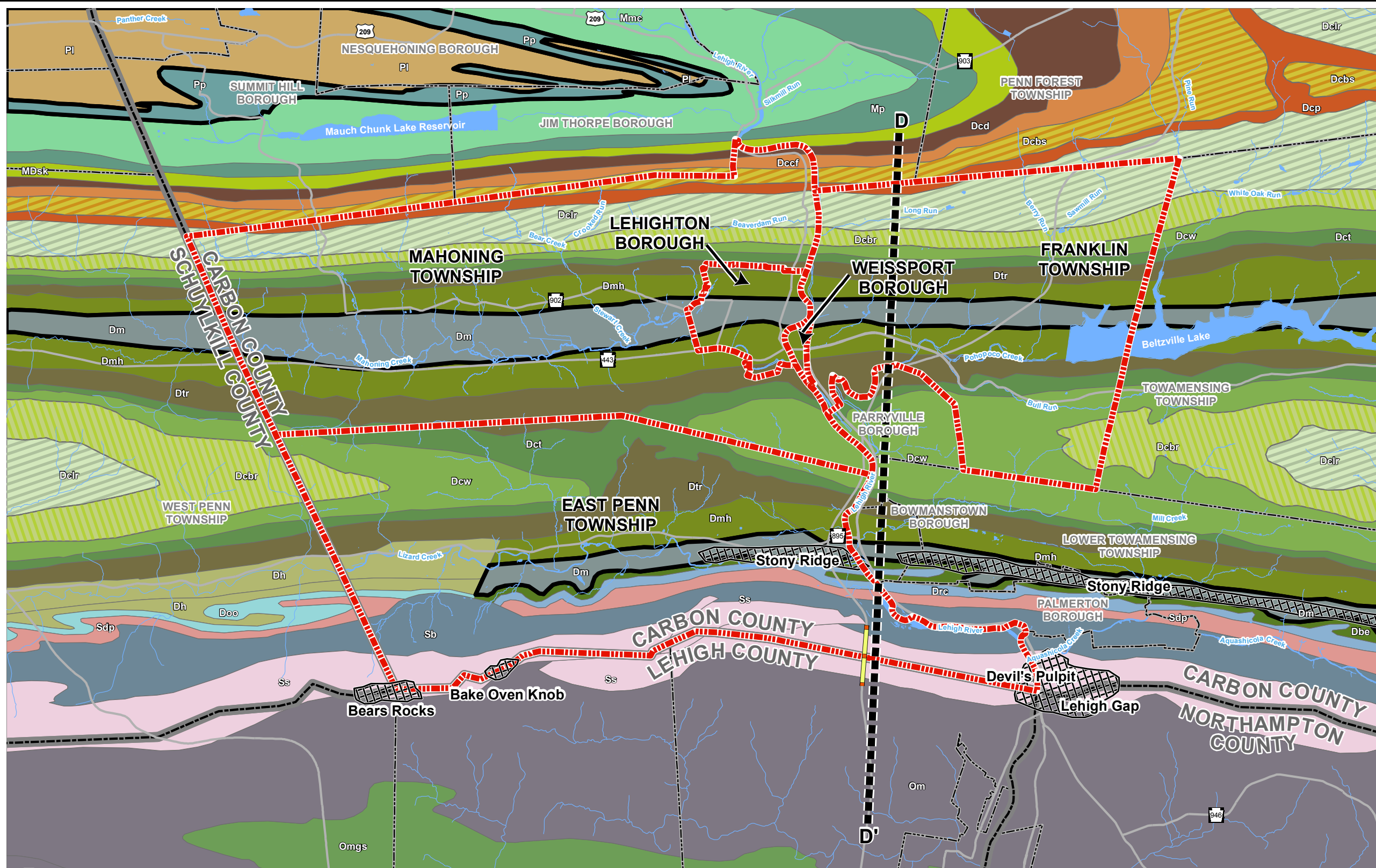
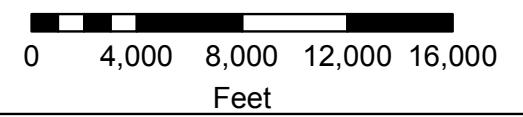
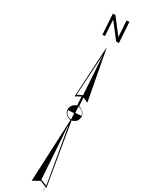
³⁴ <http://www.dep.state.pa.us/dep/deputate/minres/oilgas/2010PermitDrilledmaps.htm>, July 8, 2010.

³⁵ <http://www.shulersnet.com/coalcraacker/coalfeld.htm>, March 17, 2010.

³⁶ <http://www.pageology.info/scenic/features.html>, July 8, 2010.

Map D.4-2: Unique Geologic Resources

- Legend**
-  Marcellus Formation (Natural Gas)
 -  Llewellyn Formation (Coal)
 -  Pottsville Formation (Coal)
 -  Geologic Feature
 -  Municipal Boundary
 -  Central Carbon County Region/Municipal Boundary
 -  County Boundary
 -  Surface Water
 -  Road
 -  Lehigh Tunnel
 -  Rail Line



Source: Epstein, Jack B. and Sevon, W.D. 2007. *Bedrock Geologic Map of the Lehighton and Palmerton 7 1/2-Minute Quadrangles, Pennsylvania.*



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- Stony Ridge (a.k.a. Rocky Ridge and Devils Wall) – The 9.7 mile long ridge between the village of Ashfield in East Penn Township and Little Gap in Lower Towamensing Township consists of a 100 foot thick ridge of hard white sandstone devoid of soil and tree cover. The sandstone is highly fractured and weathering has produced a myriad of stone figures silhouetted against the sky.
- Devils Pulpit – On the East Penn Township side of the Lehigh Gap, this pinnacle of quartzite resembles a pulpit and is a solitary remnant of rock left by erosion of the gap.



These two sites, along with the Lehigh Gap, are also listed as Heritage Geology Sites in the Pennsylvania Natural Heritage Program (PNHP), formerly known as the Pennsylvania Natural Diversity Inventory (PNDI). Heritage geologic features are recognized special places of intertwined geology and scenic landscapes that represent the geologic diversity of the Commonwealth.³⁷

Topography and Steep Slopes

The highest elevation in the region is 1,640 feet above sea level at the top of Blue Mountain west of the Lehigh Valley Tunnel of the Pennsylvania Turnpike's Northeast Extension. Lehigh Gap is the lowest point, at approximately 410 feet above sea level and is found along the Lehigh River as it leaves East Penn Township and Carbon County. The total relief of Blue Mountain in the region is 1,230 feet.

The slope of the land helps determine the land uses that can occur. Steeper slopes are subject to severe erosion and generally have shallow soils. Construction on steep slopes can create unsafe road and driveway grades, poorly functioning on-lot sewage systems, and soil erosion during and after construction. These difficulties may sometimes be overcome, but usually at high costs that make steeper slopes unfeasible and unsuitable for most residential, commercial, and industrial development. Moderately steep slopes (15-25%) can accommodate residential development only if extreme care is taken in planning, installation, and maintenance of both the structures and their wastewater disposal systems. These slopes are generally unsuitable for large-scale residential subdivisions. Excessively steep slopes (over 25%) are best suited for pasture, wildlife, and forestry uses.

The region's topography, formed by the erosion of underlying rock, is bordered on the south by the steeply sloped Blue Mountain. Steep slopes can also be found along the slopes and headwater streams along Indian Hill, Mahoning Mountain/Hill, and Mauch Chunk Ridge; along Pohopoco Creek; and along the Lehigh River where it has eroded through Blue Mountain and Mauch Chunk Ridge/Bear Mountain (Map D.4-3).

The slope categories are derived from the U.S. Department of Agriculture Natural Resources Conservation Service's Soil Survey, which is not the most accurate source for slope data, but is

³⁷ <http://www.dcnr.state.pa.us/topogeo/pnhp/pnhpsites.aspx>, July 8, 2010.

the only one available at this time. According to this data (Table D.4-1), at least 4,801 acres or 11.9% of the region contain soils with moderately steep slopes (15-25%). Additional areas of 15 to 25% slope exist, but are combined in the 8 to 25% slope category. Excessively steep slopes (over 25%) comprise 6,490 acres or 16% of the region, with East Penn Township containing the largest proportion of all the municipalities. Over 20% of the Township has excessively steep slopes, due primarily to the presence of Blue Mountain and the Lehigh Gap.

Table D.4-1: Steep Slopes

Municipality	Acres ²				Percent Over 25% Slope
	Total Acres ¹	8 to 25% Slope	15 to 25% Slope	Slopes Over 25%	
East Penn Township	14,432	2,307	1,415	2,948	20.4%
Franklin Township	9,664	128	1,254	1,228	12.7%
Lehighton Borough	1,120	0	91	42	3.8%
Mahoning Township	15,162	328	2,041	2,272	15.0%
Weissport Borough	102	0	0	0	0.0%
Central Carbon County	40,480	2,763	4,801	6,490	16.0%
1. U.S. Census Bureau, 2000.					
2. Carbon County GIS Department, August 2010.					

Soils

Soil characteristics can hinder or facilitate development. Soils with moderate percolation rates are appropriate sites for development because they absorb stormwater and can support structures. Soils that drain slowly or there are very shallow, may not be suitable for buildings with basements. Consequences of construction on poor soils include ground and surface water pollution, wet basements, and subsidence. Understanding soils is important to directing the region’s future growth and development.

The USDA/NRCS Soil Survey provides information for land use planning by rating soils for various uses and identifying the most limiting features for each soil. Ratings are provided for building site development, sewage disposal systems, and other uses. It must be noted that because of the sampling and map scale of the information, it is not site specific and does not eliminate the need for on-site investigation of the actual soils or for testing and analysis by personnel experienced in the design and construction of buildings and septic systems.

Soil Limitations for Dwellings

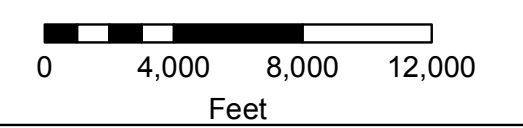
Map D.4-4 shows the soil ratings in the region in which the soils are “very limited”, “somewhat limited”, and “not limited” for the construction of dwellings without basements. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and that affect excavation and construction costs of dwellings. Ratings are also available for dwellings with a basement, but the map includes only soil limitations for dwellings without basements since they involve less excavation and are therefore less restrictive.

“Not limited” indicates that the soil features are very favorable for the construction of dwellings and where good performance and very low maintenance can be expected. “Somewhat limited”

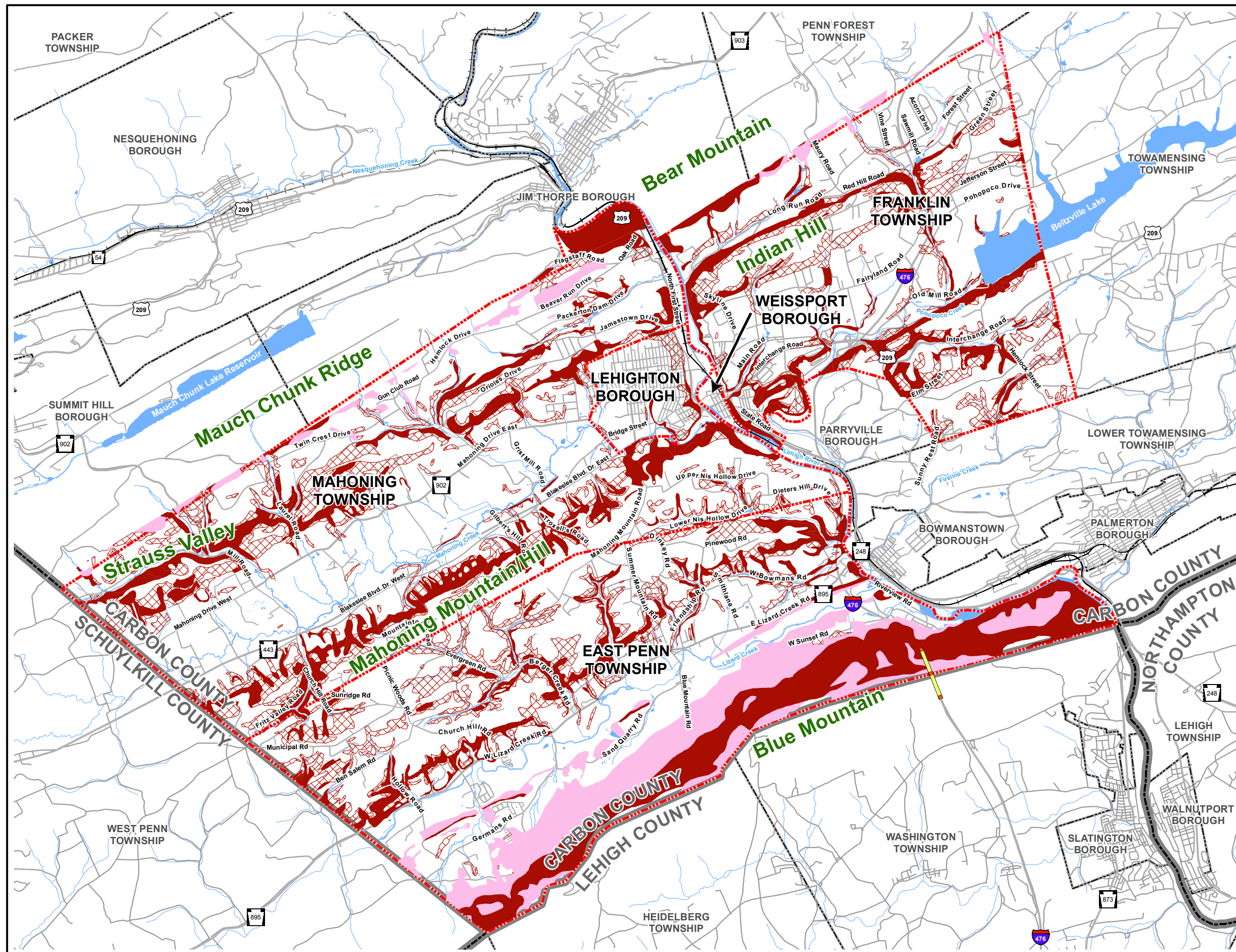
Map D.4-3: Steep Slopes

Legend

- Excessive (>25%)
- Moderate (15-25%)
- Partially Moderate (8-25%)
- Municipal Boundary
- Central Carbon County Region/Municipal Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



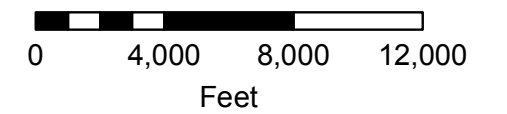
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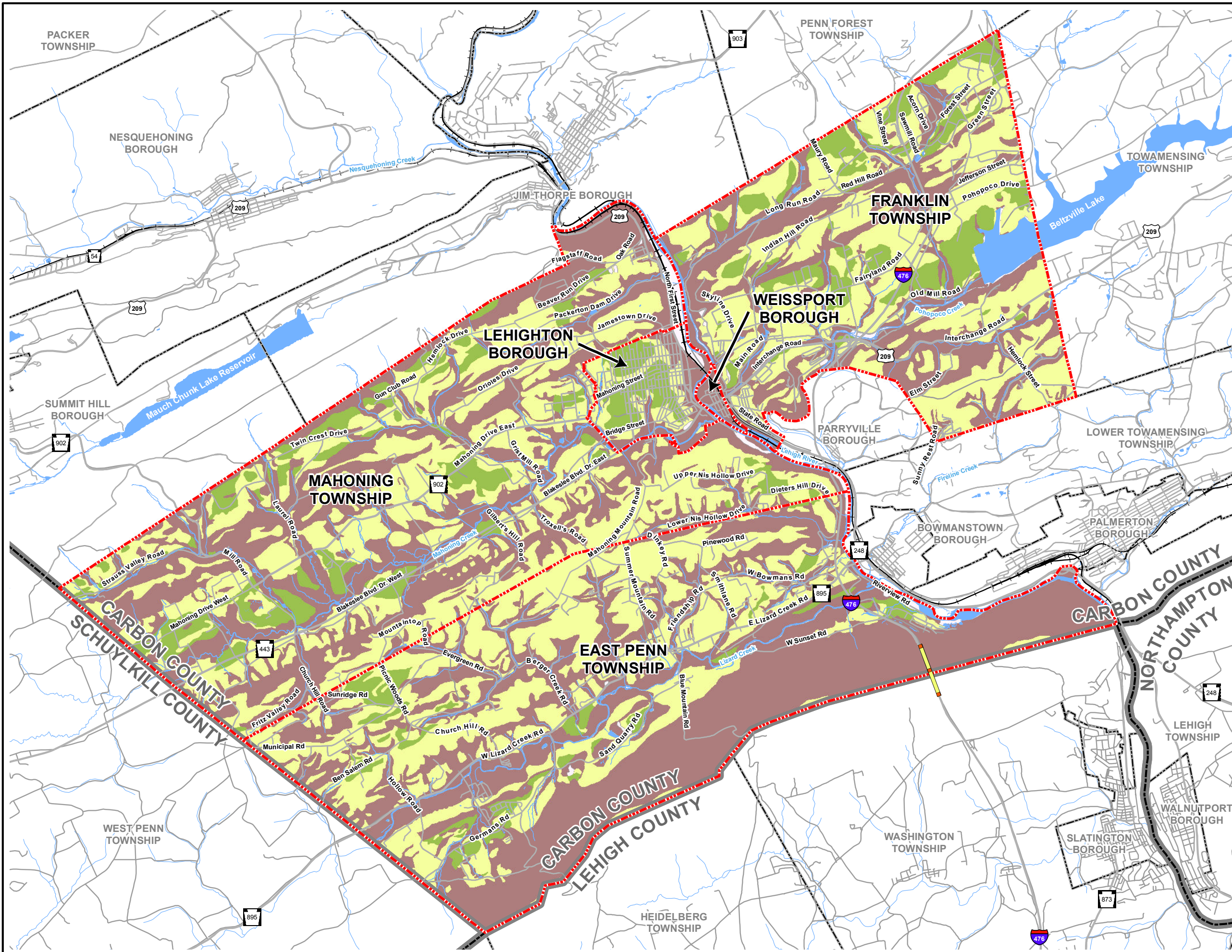
Map D.4-4: Development Limitations for Dwellings

Legend

- Not Rated
- Very Limited
- Somewhat Limited
- Not Limited
- Municipal Boundary
- Central Carbon County Region/Municipal Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



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indicates that soil features are moderately favorable and where the limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected if these mitigating actions are taken. “Very limited” indicates that the soil has one or more features that are unfavorable for the construction of dwellings and where the limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Only 3,942 acres within the region are rated as “not limited” (Table D.4-2). These soils are located primarily in Lehigh Township, along the Mahoning Creek, west of Beltzville Lake, and in the northern watershed of Pohopoco Creek; the same areas of prime farmland soils. Lehigh Township has the highest proportion of its soils rated “not limited” in the region (38%).

Table D.4-2: Soil Limitations for Dwellings

Municipality	Dwellings with Basements			Dwellings without Basements		
	Very Limited (acres)	Somewhat Limited (acres)	Not Limited (acres)	Very Limited (acres)	Somewhat Limited (acres)	Not Limited (acres)
East Penn Township	12,865	1,175	231	8,277	5,359	634
Franklin Township	6,446	1,859	1,325	3,458	4,749	1,422
Lehigh Township	546	73	379	306	313	379
Mahoning Township	10,968	2,956	975	6,785	6,607	1,507
Weissport Borough	84	0	0	84	0	0
Central Carbon County	30,909	6,063	2,910	18,910	17,028	3,942

Source: Carbon County GIS Department, 2010.

Over 18,900 acres or 47.4% of the region contains soils which are “very limited” for dwellings without basements, while another 17,028 acres are rated “somewhat limited”. Limiting factors include depth of hard bedrock, depth to saturated zone, flooding, large stones, ponding, shrink-swell, and slope.

For dwellings with basements, over 3/4 of the region (77.5%) contain soil properties that are very limiting. Limiting factors in the region for dwellings with basements are the same as those for dwellings without basements but are more widespread and frequent due to the additional excavation required.

Soil Limitations for On-Lot Septic Systems

Soil ratings are also available for various types of on-lot septic systems and are critical in areas where public sewer service is not proposed to be extended. Ratings have been established for the following types of conventional and alternate septic system absorption fields:

- Conventional Septic Systems
 - In Ground Bed
 - Sand Mound Bed or Trench
 - Spray Irrigation
 - In Ground Trench
 - Subsurface Sand Filter Bed
 - Subsurface Sand Filter Trench
- Alternate Septic Systems
 - At-Grade Bed

- Drip Irrigation
- Steep Slope Sand Mound
- Shallow Placement Pressure Dosed System
- A/B Soil System
- Modified Subsurface Sand Filter

Map D.4-5 includes the soil limitations for on-lot septic systems in the region. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. “Not limited” indicates that the soil has features that are very favorable for on-lot septic systems and where good performance and very low maintenance can be expected. “Slightly limited” indicates that the soil has features that are favorable and moderate performance and slight maintenance can be expected. “Moderately limited” indicates that the soil has features that are moderately favorable for on-lot systems and where the limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected if these mitigating actions are taken. “Very limited” indicates that the soil has one or more features that are unfavorable for on-lot systems and where the limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected in these soils.

Only 672 acres within the region are rated as “not limited” for on-lot septic systems (Table D.4-3). These soils are located primarily in along Mahoning Drive and downstream of Beltzville Lake. A total of 16,550 acres or 41.5% of the region is comprised of soils which are “slightly limited” or “moderately limited” for on-lot systems. These areas are located in roughly four southwest-to-northeast bands parallel to the ridges in the region. Over 22,655 acres or 56.8% of the region contains soils which are “very limited” for on-lot systems.

It should be noted that the soil ratings and locations from the Soil Survey are very general and do not substitute for the need to conduct on-site soil testing for the actual conditions and limitations of a particular site. This testing has already revealed locations in the region where conventional on-lot sewage systems are suitable when the Soil Survey indicated very limited ratings.

Table D.4-3: Soil Limitations for On-Lot Septic Systems

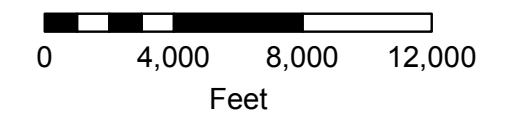
Municipality	Very Limited (acres)	Moderately Limited (acres)	Slightly Limited (acres)	Not Limited (acres)
East Penn Township	8,422	3,754	1,931	163
Franklin Township	4,948	815	3,681	185
Lehighon Borough	541	4	423	28
Mahoning Township	8,660	1,773	4,169	296
Weissport Borough	84	0	0	0
Central Carbon County	22,655	6,346	10,204	672
<i>Source: USDA Natural Resources Conservation Service, August 2010.</i>				

The Soil Survey also includes ratings for community sewage systems, small commercial buildings, local road and streets, and various other uses; but these are not included in this discussion due to the large volume of information and the limitations of this Plan.

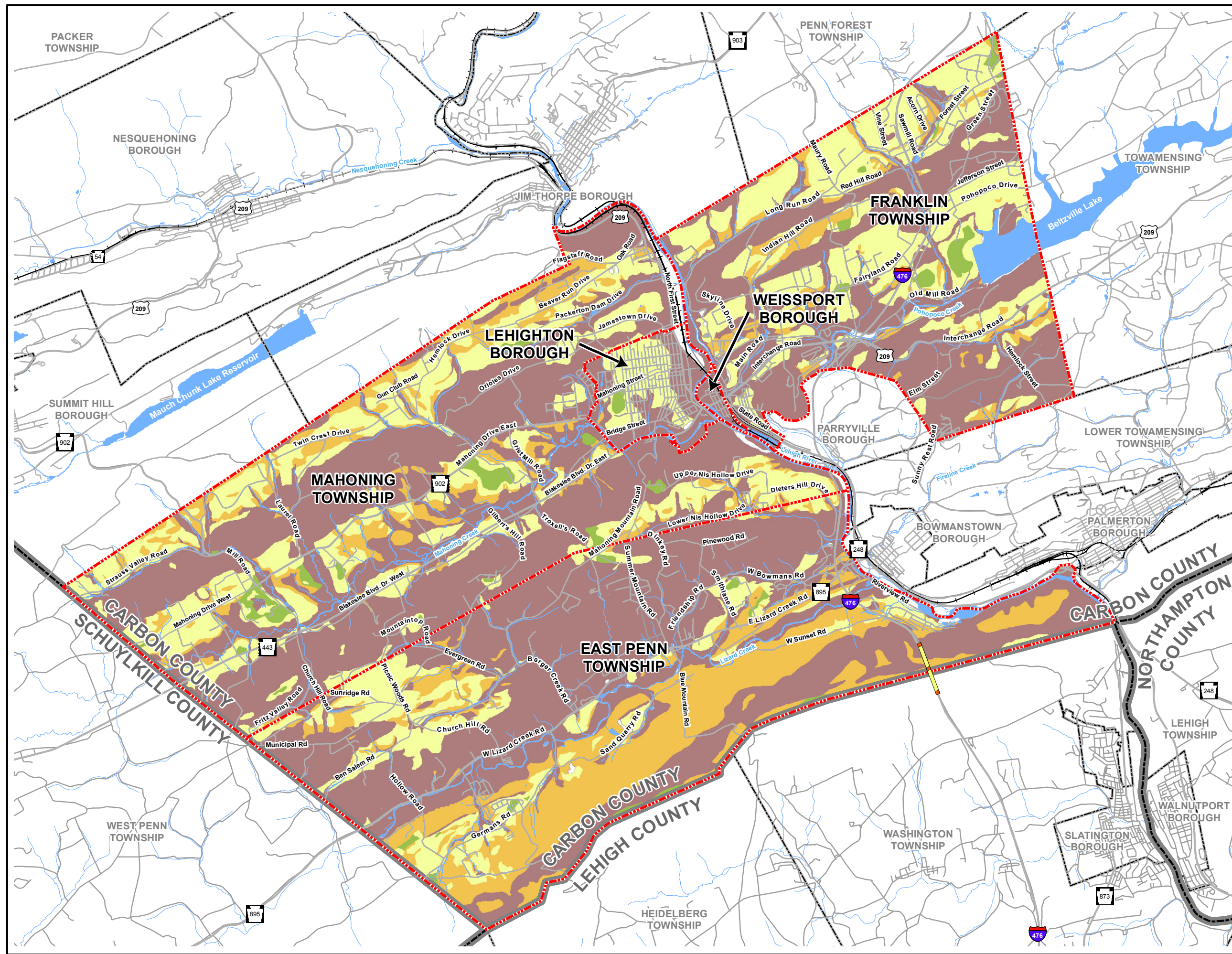
Map D.4-5: Soil Limitations for On-lot Septic Systems

Legend

- Not Rated
- Very Limited
- Moderately Limited
- Slightly Limited
- Not Limited
- Municipal Boundary
- Central Carbon County Region/Municipal Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



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Prime and Other Important Farmland Soils

In an effort to identify the extent and location of important farmland, the Natural Resources Conservation Service (NRCS), in cooperation with other interested federal, state, and local government organizations, has inventoried land that is considered critical for the production of the Nation’s food supply. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide importance.

Prime farmland soils have productivity ratings of Class I, II, and III and have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. It is of major importance in meeting the Nation’s short- and long-range need for food and fiber. Because the supply of this high quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of this prime farmland. Prime farmland soils in the region are located along the slopes of Indian Hill and the lower slopes of Mauch Chunk Ridge, along Lizard Creek and Mahoning Creek, along the northern tributaries to Pohopoco Creek, and in the Kriss Pines area (Map D.4-6). There are over 7,377 acres of prime farmland soils in the region (Table D.4-4).

Generally, farmland of statewide importance include soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce yields as high as prime farmland if conditions are favorable. Farmland soils of statewide importance are found in the same areas of the region as prime farmland soils and along the northern tributaries to Lizard Creek and the southern tributaries to Pohopoco Creek. There are 8,341 acres of farmland soils of statewide importance in the region. Combined with prime farmland soils, 38.8% of the region is comprised of important farmland soils.

Table D.4-4: Prime and Other Important Farmland Soils

Municipality	Total Acres ¹	Prime Farmland Soils		Farmland Soils of Statewide Importance	
		Acres ²	Percent	Acres ²	Percent
East Penn Township	14,432	1,440	10.0%	2,461	17.1%
Franklin Township	9,664	2,391	24.7%	2,351	24.3%
Lehighton Borough	1,120	470	42.0%	128	11.4%
Mahoning Township	15,162	3,001	19.8%	3,401	22.4%
Weissport Borough	102	75	73.5%	0	0.0%
Central Carbon County	40,480	7,377	18.2%	8,341	20.6%
1. U.S. Census Bureau, 2000.					
2. Carbon County GIS Department, 2010.					

Unfortunately, since prime and statewide important farmland soils have few limitations for agriculture (e.g. – slope, drainage, depth to bedrock, etc.), they are also optimum soils for development. The loss of farmland to development is an increasing trend which puts pressure on marginal farm lands that are more erodible, droughty, and less productive and cannot be easily cultivated. The redevelopment of existing developed areas and “in-fill” development can reduce the pressure to develop agricultural land and help preserve this important resource.

Agricultural Preservation Programs

There are various programs that help to preserve agricultural land and its use as a valuable natural resource, the most common of which are summarized below. All of these programs are voluntary and require some level of landowner cooperation. Landowners may participate in more than one of the programs and in fact, participation in one (e.g. – Agricultural Security Area) may be a prerequisite for another (e.g. – Agricultural Conservation Easement).

Agricultural Security Areas (ASAs)

Agricultural Security Areas (ASAs) are intended to promote more permanent and viable farming operations by strengthening the farming community’s sense of security in land use and the right to farm. ASAs are created by local municipalities in cooperation with individual landowners who agree to collectively place at least 250 acres in an ASA. At least half of the land should be in Agricultural Soil Capacity Classes I through IV. ASAs provide three main benefits to landowners:

- Municipalities agree to support agriculture by not passing nuisance ordinances which would restrict normal farming operations.
- Limitations are placed on the ability of government units to condemn farmland for new schools, highways, parks, or other governmental projects.
- Landowners who are part of a 500 acre or larger ASA may be eligible to apply to sell a perpetual agricultural conservation easement (i.e. – their development rights) through a state, county, or local agricultural land preservation program.

Having land enrolled in an ASA does not restrict a landowner’s ability to use or sell their property for non-agricultural development purposes. There are 7,269 acres in three Agricultural Security Areas in the region: 2,610 acres in East Penn Township, 2,722 acres in Franklin Township, and 1,937 acres in Mahoning Township (Map D.4-6 and Table D.4-5).

Table D.4-5: Agricultural Preservation Programs








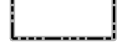





Municipality	Total Acres ¹	Agricultural Security Area		Act 319 and 515 Parcels		Conservation Easements	
		Acres ²	Percent	Acres ²	Percent	Acres ²	Percent
East Penn Township	14,432	2,610	18.1%	5,452	37.8%	225	1.6%
Franklin Township	9,664	2,722	28.2%	2,397	24.8%	29	0.3%
Lehigh Township	1,120	0	0.0%	0	0.0%	0	0.0%
Mahoning Township	15,162	1,937	12.8%	5,644	37.2%	248	1.6%
Weissport Borough	102	0	0.0%	0	0.0%	0	0.0%
Central Carbon County	40,480	7,269	18.0%	13,493	33.3%	502	1.2%
1. U.S. Census Bureau, 2000.							
2. Carbon County GIS Department, 2010.							

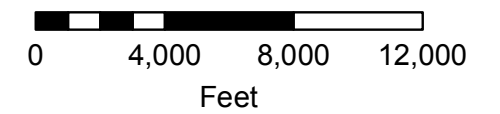
Act 319 and Act 515 Parcels

Act 319, or the “Clean and Green Act”, allows Pennsylvania counties to place two values on each parcel of farmland or forestland that is a minimum of ten acres in size. These values are known as the Fair Market Value and the Agricultural-Use Value. Landowners who enroll in Act 319 agree to maintain their land as farmland or forestland and in return, the county assesses the land according to the Agricultural-Use Value rather than the Fair Market Value. Property

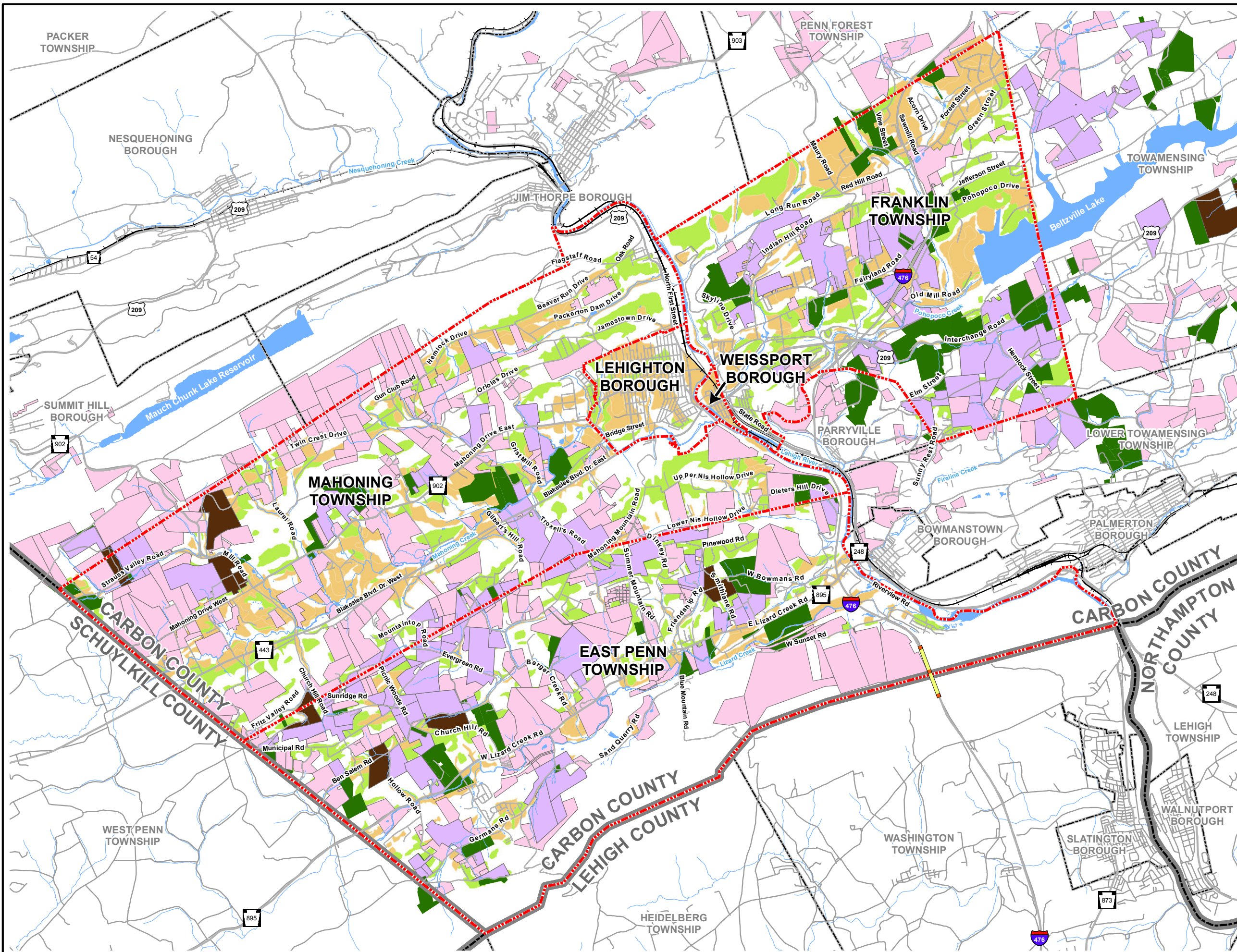
Map D.4-6: Prime Agricultural Land

Legend

-  Agricultural Easements
-  Agricultural Security Area
-  Act 319/515 Parcel
-  Agricultural Security Area Enrolled in Act 319/515
-  Prime Farmland Soil
-  Farmland Soil of Statewide Importance
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
-  Rail Line



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enrolled in Act 319 remains in the program continuously or until the owner chooses to withdraw and return to the standard tax assessment.

Act 515 enables counties to establish a covenant with farmers and landowners to preserve land in farm, forest, water supply, or open space in exchange for taxing the land according to its use value rather than the prevailing market value. The program is voluntary and requires that the land will remain in the designated land use for a minimum period of ten years.

There are total of 13,493 acres enrolled in Act 319/515 in the region, or one-third of the total land area.

Conservation Easements

Unlike the previous preservation programs, easements are legal documents that run with the land in perpetuity. They can be acquired by the state, county, municipality, or a private non-profit land trust. When an entity acquires an easement on a property, the entity does not purchase the property from the owner but rather, they purchase certain rights on the property. Conservation easements limit development and establish stewardship guidelines for the property. Agricultural conservation easements are specific to preserving farmland, while conservation easements can include lands important to maintaining clean water and/or preserving important or unique natural areas and wildlife habitats.

The Carbon County Office of Farmland Preservation has currently acquired 473 acres of agricultural conservation easements in the region, 225 acres of which are located in East Penn Township and 248 acres in Mahoning Township. These easements were purchased through a combination of County and state agricultural preservation funds.

The Dan Kunkle property in Franklin Township contains the only non-agricultural conservation easements in the region. The easements cover a total of 29 acres on three parcels and are held by the Wildlands Conservancy.

Watersheds and Water Quality Standards

The region is located within the Lehigh River basin, which flows into the Delaware River and eventually the Atlantic Ocean. Watersheds of the Lehigh River which cover the region include Lizard Creek, Mahoning Creek, and Pohopoco Creek.

The Commonwealth of Pennsylvania has classified all surface waters according to water uses to be protected and water quality criteria which need to be maintained to prevent water quality degradation (Pennsylvania Code, Title 25, Chapter 93). Streams with excellent water quality have been designated for special protection as either High Quality (HQ) or Exceptional Value (EV) waters. The designated use of a stream determines the sewage treatment requirements and the type of sewage disposal systems that can be constructed in the watershed. For example, special protection classifications (HQ and EV) require treatment levels which make it difficult, if not impossible, to discharge treated effluent directly into a stream. Special provisions are also in place for such designated streams regarding stormwater management, including the protection of riparian buffers where no disturbance can take place.

The Lehigh River, from the PA Route 903 bridge in Jim Thorpe downstream through the region, is classified as a Trout Stocking Fishery, Migratory Fishes (TSF, MF) waterway. Upstream of the PA Route 903 bridge, the river is designated a High Quality (HQ) stream; roughly coinciding with its designation as Pennsylvania Scenic River.

The Lizard Creek watershed is also classified as a TSF, MF waterway; except for an un-named tributary parallel to Hollow Road in East Penn Township which is designated as an Exceptional Value (EV), Migratory Fishes (MF) stream (Map D.4.7).

Mahoning Creek and Pohopoco Creek are both classified as Cold Water Fisheries (CWF), Migratory Fishes (MF) waters.

There are several other streams in the region that are currently not officially designated for special protection in Chapter 93, but whose existing use or water quality is sufficient to be considered for special protection (Table D.4-6). This status means that any permit affecting water quality of the stream is evaluated based on the proposed designation.















Table D.4-6: Existing and Proposed Special Protection Streams

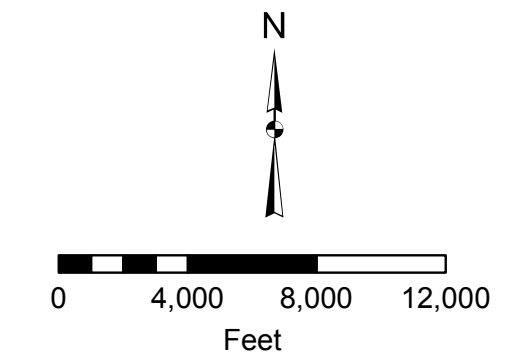
Status/Stream Name	Watershed	Municipality	Segment	Date of Evaluation	Designation
Existing Designation					
Un-Named Tributary (No. 03876)	Lizard Creek	East Penn Township	Basin, source to Lizard Creek	Feb. 2008	Exceptional Value
Existing Use/ Proposed Designation					
Bull Run	Pohopoco Creek	Franklin Township	Basin, source to Pohopoco Creek	Oct. 2006	Exceptional Value
Pine Run	Pohopoco Creek	Franklin Township	Basin, source to Beltzville Lake	Nov. 2006	Exceptional Value
Sawmill Run	Pohopoco Creek	Franklin Township	Basin, source to the downstream-most crossing of PA Turnpike	Nov. 2006	Exceptional Value
Stewart Creek	Mahoning Creek	Mahoning Township	Basin, source to Rt. 902 bridge; Bear Creek and Crooked Run	May 2007	Exceptional Value
Un-Named Tributary (No. 04055)	Mahoning Creek	Mahoning Township	Basin, source to Mahoning Creek	May 2007	Exceptional Value
Un-Named Tributary (No. 04060)	Mahoning Creek	Mahoning Township	Basin, source to Mahoning Creek	May 2007	Exceptional Value
<i>Source: Pennsylvania Department of Environmental Protection eMapPA, September 2, 2010.</i>					

In addition to the DEP water quality standards, the region is also covered by the Delaware River Basin Commission’s (DRBC) special protection watershed regulations and, as such, all applicants for any wastewater system involving greater than 10,000 gallons per day (gpd) must consider both natural treatment processes (e.g. – lagoons) and non-stream discharge systems (e.g. – spray irrigation, drip irrigation) as part of the approval process.

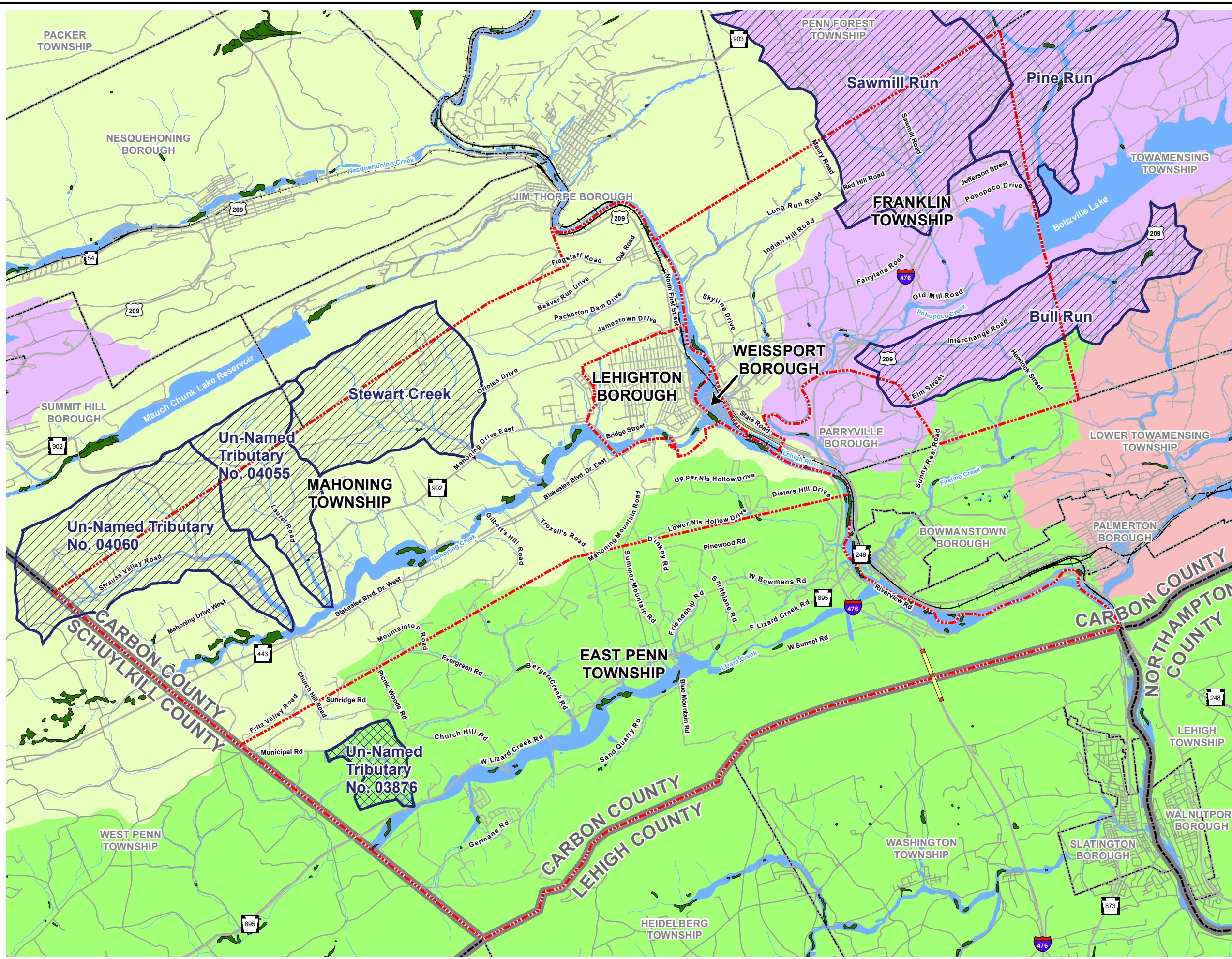
Map D.4-7: Water Resources

Legend

-  NWI Wetland
-  FEMA 100-year Floodplain/Surface Water
- Mean Annual Groundwater Recharge (inches)
 -  14.01 - 16.00
 -  16.01 - 18.00
 -  18.01 - 20.00
 -  20.01 - 22.21
- Exceptional Value Watershed
 -  Designated
 -  Proposed
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Road
-  Lehigh Tunnel
-  Rail Line



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Lehigh River

The Lehigh River is one of the most significant geographical features in the east central part of Pennsylvania and is a culturally important asset to the residents of the area.³⁸ The health of the river is therefore closely tied to the quality of the lives of the watershed's residents. For this reason, a strategic plan for the watershed, the *Lehigh River Watershed Conservation Management Plan*, was prepared in 1998 by the Wildlands Conservancy. The *State of the Lehigh River Report*, prepared in 2003, is the executive summary of the Conservation Management Plan.



DEP has an ongoing program to assess the quality of waters in the state, with streams that do not meet water quality standards identified as “impaired” per Section 303(d) of the federal Clean Water Act. Although a segment of the main stem of the Lehigh River and several of its tributaries in the upper portion of the Lehigh River watershed (i.e. – north of Blue Mountain) are impaired with metals and pH as a result of mine acid drainage, none of the streams in the region are affected by mine acid drainage. The lower portion of the watershed is affected by habitat alterations, siltation, suspended solids, and organic enrichment from agriculture, urban runoff, and storm sewers.

Based on the resources and issues in the watershed, the goals of the strategic plan are as follows:

- Protect and Preserve Cultural and Historical Resources
- Improve Water Quality in the Lehigh River Watershed
- Protect Significant and Valuable Land Components
- Protect Biological Resources
- Increase and Enhance Watershed Recreational Opportunities
- Promote Municipal Watershed Stewardship
- Promote Environmental Awareness, Knowledge, Skills, Support, and Stewardship Commitment
- Monitor and Update Watershed Resource Information on a Continuing Basis

Each goal contains more detailed objectives and numerous recommendations for implementation.

The Lehigh River Stocking Association is a non-profit organization dedicated to the restoration, revitalization and restocking of the Lehigh River, with the goal of continuously improving the waterway and its tributaries.³⁹

Lakes

Beltzville Lake, with a water surface area of 947 acres located on the Pohopoco Creek in Franklin and Towamensing Townships, has been in operation since October 1970. It has an

³⁸ <http://wildlandspa.org>, April 14, 2009.

³⁹ <http://www.lrsa.org/>, November 17, 2009.

estimated volume of 14 billion gallons. The primary purposes of the project are flood control, water quality control, future water supply, low flow augmentation, and recreation.

The water quality in Beltzville Lake remains high and within the standards established by Pennsylvania DEP and U.S. Environmental Protection Agency. In general, there is a slight increase in ammonia nitrogen and phosphorous levels and a decrease in the PH following periods of heavy precipitation, most likely associated with run-off from surrounding areas.

Water releases are made by Delaware River Basin Commission (DRBC) for flood mitigation and flow control of the Delaware River at Trenton. The minimum flow release from the lake is 35 cubic feet per second or 22.6 million gallons per day to maintain water quality in the Pohopoco Creek.



Floodplains

Floodplains are areas adjacent to a river or stream that are periodically inundated by the river's or stream's overflow. These areas may be wet a portion of the year, but can often be extremely productive for the growth of vegetation which can help filter sediment from surface runoff, stabilize streambanks, reduce soil erosion, and protect water quality. They can absorb and store large amounts of water and consequently provide groundwater recharge. They also provide excellent areas for species habitat and biodiversity.

Flood events are affected by upstream development and particularly the extent to which effective stormwater management measures are in place in these areas. Significant flooding in the area has occurred in 1972, 1985, 1996, 2004, and 2006.⁴⁰ Regulation of floodplains can help minimize the threat to human life and property due to flooding. Restricting the allowable uses within a floodplain is an important step in assuring its protection. All municipalities are required by the Federal Emergency Management Agency (FEMA) and the state to adopt floodplain ordinances, which then allows residents with homes located in the floodplain to obtain federally backed flood insurance.

The regulated floodplain is associated with the 100-year or base flood, which has a one percent chance of being equaled or exceeded in a given year. Floodplains are divided between floodways, which carry flood waters downstream; and flood fringe areas, which store flood waters until they are released by the floodway. At a minimum, municipalities must prohibit all encroachments, including fill, new structures, and other development within identified floodways that would cause any increase in flood heights. Development in flood fringe areas is permitted as long as the lowest floor is elevated to or above the base flood level.

Floodplains are situated along the Lehigh River, Lizard Creek, and Mahoning Creek (Map D.4-7). Limited floodplain areas are located along Pohopoco Creek due to the flood protection features of the Beltzville Dam. There are total of 3,078 acres of floodplain in the region (Table D.4-7).

⁴⁰ Defined as those which resulted in the declaration of a major disaster. Source: http://www.fema.gov/news/disasters_state.fema?id=42.

Table D.4-7: Floodplains, Wetlands, and Hydric Soils

Municipality	100 Year Floodplain (acres)	Wetlands per National Wetlands Inventory (acres)¹	Hydric Soils (acres)	Wetlands within Hydric Soils (acres)	Partially Hydric Soils (acres)
East Penn Township	1,051	59	748	21	5,654
Franklin Township	738	10	209	1	3,527
Lehighon Borough	202	8	57	2	381
Mahoning Township	986	112	965	77	5,338
Weissport Borough	101	2	0	0	84
Central Carbon County	3,078	191	1,979	101	14,984
1. Does not include open water wetlands (i.e. - ponds, lakes, rivers).					
Source: Carbon County GIS Department, 2010.					

As a percentage of its total area, Weissport Borough has the highest proportion in floodplain than the other four municipalities in the region (99%). As a result, Weissport Borough has had flood control structures (including levees) constructed, raised, extended, and repaired beginning in 1934.⁴¹ And a recent study conducted in spring 2010 is recommending that the levees be raised another foot for added flood protection.

Wetlands and Hydric Soils

Wetlands typically occur as bogs, marshes, and swamps; and are often saturated lands or areas with a seasonal high water table. Wetlands are important because they help to improve water quality by filtering sediments and non-point source pollutants, assist with groundwater recharge, serve as natural retention basins for stormwater, reduce flooding, and serve as wildlife habitats.

Wetlands are identified by the combination of the following three (3) indicators: hydric soil, wetland vegetation, and hydrology. The National Wetlands Inventory (NWI) has mapped wetlands via remote sensing techniques, which is useful as an initial indicator of wetlands. Due to the limitations of this data collection, additional research is needed to identify other wetlands. NWI wetlands are scattered throughout the region along the Lehigh River, Lizard Creek, and Mahoning Creek; with the largest concentration along the upper reaches of Mahoning Creek (Map D.4-7). There are a total of 191 acres of NWI wetlands in the region.

Another indicator of wetlands is the presence of hydric soils. A hydric soil is one that has formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions. The concept of hydric soils includes soils developed under sufficiently wet conditions to support wetlands vegetation. The 1,979 acres of hydric soils in the region, as identified by the Soil Survey, are concentrated along Lizard Creek and Mahoning Creek (Map D.4-8). Taking into account hydric soils that have also been identified as NWI wetlands (101 acres), there is a net total of 2,069 acres of wetlands and hydric soils in the region.

⁴¹ *Rehabilitation of Damaged Flood Control Works, Lehigh River Weissport Flood Protection Project, Carbon County, Pennsylvania, Draft Environmental Assessment, 2006.*

There are an additional 14,984 acres of soils that have been identified as “partially hydric”. Partially hydric means that at least one component of the soil is rated as hydric and at least one component is not rated as not hydric. Field verification is needed to determine whether any hydric soil meets the criteria for the three indicators of regulated wetlands.

Wetlands are regulated by the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection (PaDEP) under the Federal Clean Water Act. The Corps requires a permit to fill wetlands greater than one (1) acre in size and any wetlands disturbance may require that the loss of wetlands be mitigated by the creation of wetland areas elsewhere. Disturbance of areas near wetlands can affect their hydrology and diminish their use, function, and value.

Aquifer Recharge Zones

The region has an abundant supply of fresh surface water; however, other than those developed areas provided with public water from surface water, most homeowners depend on groundwater from individually drilled wells. The water in those wells is mostly pulled from the saturated water table, which is fed almost exclusively by local rainfall. The amount of rainfall that reaches the groundwater table is therefore critical.

The amount of rainfall in Pennsylvania, based on annual averages, is about 42 inches a year. Where conditions permit, approximately 13 inches infiltrates into the ground, while 22 inches returns to the atmosphere through evapo-transpiration and 7 inches reaches the streams directly through stormwater runoff.⁴² Of the total amount that infiltrates, some of it is needed to eventually discharge to streams to maintain the base flow of the stream.

Fortunately for the region, it is estimated as having recharge rates ranging from 14.01 to 22.21 inches annually, well above the average for Pennsylvania (Map D.4-7). The best recharge rates (20.01 to 22.21 inches) occur in the Mahoning Creek watershed and the Indian Hill portion of Franklin Township, with a somewhat reduced recharge rate (18.01 to 20.00 inches) in the Pohopoco Creek watershed. The lowest recharge rate in the region (14.01 to 16.00 inches), which is still above the state average, occurs in the Lizard Creek watershed.

Since most water entering the groundwater table discharges to springs, wetlands, or streams to maintain base flow, these above average recharge rates in the region mean more water available for domestic use, while still protecting the area streams. Except for the Lehigh River, the region is drained by relatively small streams which require low base flow to maintain their aquatic habitats.

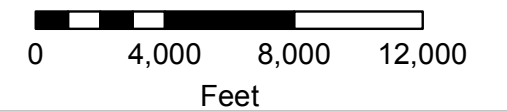
Based on testing done as part of the Lehigh River Watershed Conservation Management Plan, the quality of the groundwater in the region is generally good and contaminated wells appear to be rare. The most significant concern was naturally occurring radon. Threats to groundwater are limited in the area, but include typical issues relating to urban development and agricultural runoff. The Marcellus Shale Formation does underlay the area, but there has been little interest in gas exploration in the area which can impact groundwater supplies, because of more productive layers in other areas of the state.

⁴² *Summary of Groundwater-Recharge Estimates for Pennsylvania*, Pennsylvania Geological Survey, Water Resource Report 70, S. O. Reese and D. W. Risser, 2010.

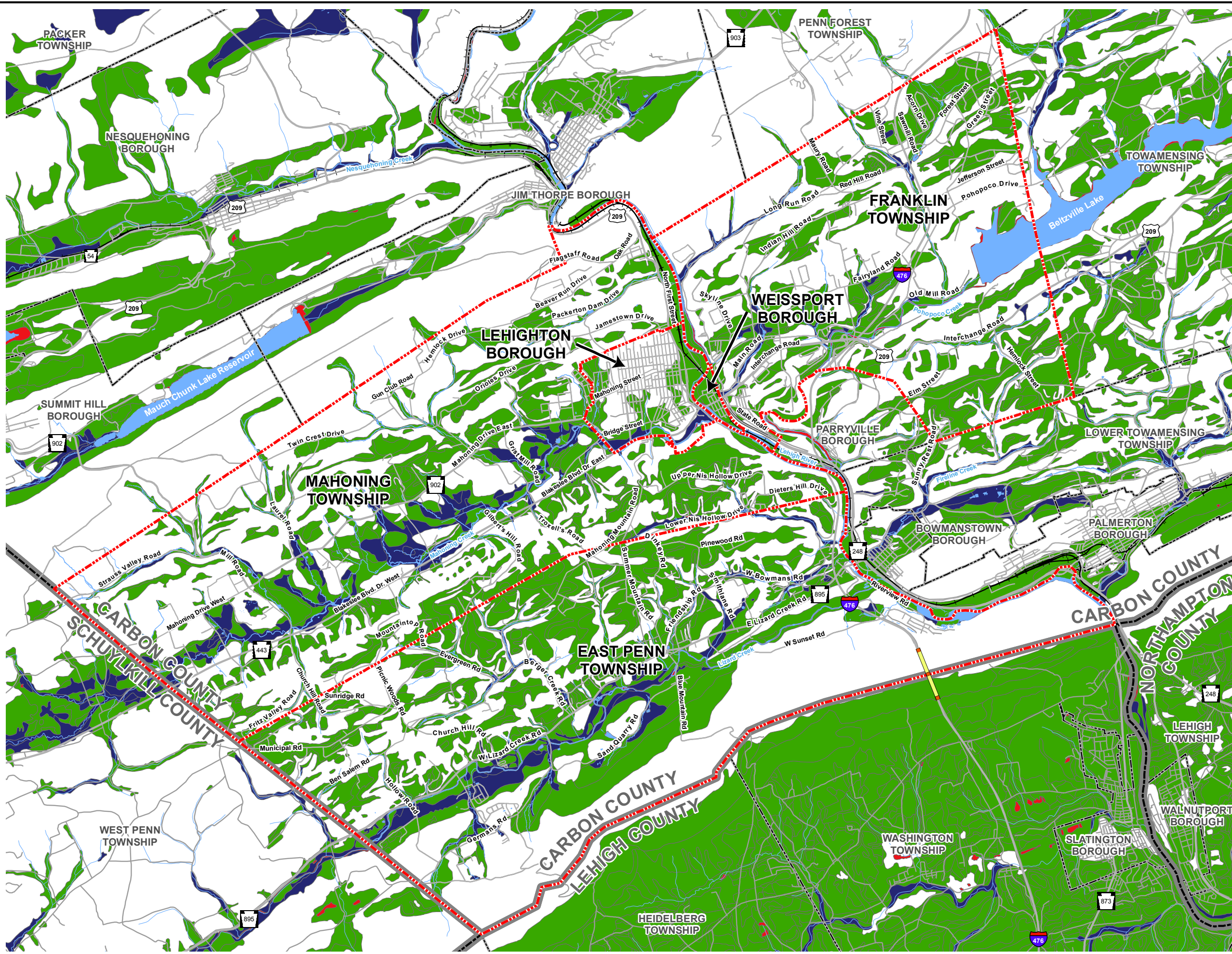
Map D.4-8: Hydric Soils

Legend

- Not Hydric
- Partially Hydric
- All Hydric
- Unknown Hydric Rating
- Municipal Boundary
- Central Carbon County Region/Municipal Boundary
- County Boundary
- Surface Water
- Road
- Lehigh Tunnel
- Rail Line



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Woodlands

Woodlands play an important role in maintaining natural ecosystems and water quality. Benefits to the environment include water and air purification, regional and local climate control, erosion control, noise reduction, open space and recreation, and habitat for wildlife. Other positive contributions include their scenic and aesthetic values, especially along Blue Mountain, which is considered one of the most scenic areas in the state.

In the region, woodlands are concentrated along the slopes of Blue Mountain, Mauch Chunk Ridge, and Bear Mountain (Map D.4-9). There are a total of 23,080 acres of woodlands in the region or 57% of the total land area, with the largest amount and percentage of all five municipalities in East Penn Township, the site of Blue Mountain (Table D.4-8). The remaining woodlands are primarily along streams and other areas unknnot yet disturbed by farming or development.

Table D.4-8: Woodlands

Municipality	Total Acres ¹	Woodlands	
		Acres ²	Percent
East Penn Township	14,432	9,816	68.0%
Franklin Township	9,664	5,310	54.9%
Lehighon Borough	1,120	187	16.7%
Mahoning Township	15,162	7,715	50.9%
Weissport Borough	102	52	51.0%
Central Carbon County	40,480	23,080	57.0%
1. U.S. Census Bureau, 2000.			
2. Carbon County GIS Department, 2010.			

Conservation Landscape Initiatives (CLI)

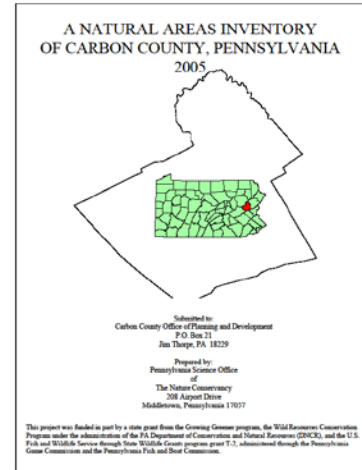
The region and Carbon County are included in DCNR’s Pocono Forest and Waters Conservation Landscape Initiative (CLI), one of seven such programs in the state. CLIs are geographically-based strategies for natural resource protection where there are significant natural resources, local support for land conservation and planning, and community economic revitalization efforts. The Pocono Forest and Waters CLI contains abundant natural resources, including the greatest concentration of wetlands in the state and large tracts of public and private forested lands, state parks, and private hunting clubs. These natural areas provide a broad array of public benefits including clean air and water, stormwater management and groundwater recharge, a sense of community, and an array of outdoor recreation activities. Since CLIs were developed primarily as an economic development tool focused on strategic investment and action, more discussion of this CLI is included in *Principle 1 – Ensure the Economic Vitality of the Region*.

Important Natural Areas

Natural area inventories have been conducted for most counties in the Commonwealth to identify and map locations of resources of special concern. The most environmentally important areas often support populations of extremely sensitive flora and fauna and are often included in the Pennsylvania Natural Diversity Inventory (PNDI) database. The Natural Areas Inventory (NAI)

of Carbon County, Pennsylvania was prepared in 2005 by the Nature Conservancy and includes eight (8) sites in the region (Map D.4-9):

- Bake Oven Knob (East Penn Township and Lehigh County) – This site is part of State Game Lands No. 217 and includes a northern Appalachian acidic rocky summit natural community. It is characterized by prominent bedrock outcrops which are flanked by large sandstone boulders. The site is recognized as an important area for scientific research and is used in the late summer and fall to census migrating raptors and other bird species. Threats include invasive species, disturbances involve the past construction of a small building.
- Bears Rocks (East Penn Township, Lehigh and Schuylkill Counties) – During a survey of this site in 1991, evidence of a PA-Threatened animal species was documented. The site includes an outcrop of Tuscarora quartzite on the crest of Blue Mountain and is entirely within State Game Lands No. 217. Threats include the potential construction of cell towers and access roads.
- Beltzville Lake Vernals (Franklin and Towamensing Townships) – This sites contains an example of a natural pool community that provides an important breeding habitat for amphibians and an important educational opportunity at Beltzville State Park. The ponds are affected by stormwater runoff and siltation from a nearby roadway.
- Lehigh Gap (East Penn and Lower Towamensing Townships, Lehigh and Northampton Counties) – Partially located in State Game Lands No. 168 and 217, this geologic feature is a water gap in Blue Mountain created as the Lehigh River has cut through the rock layers as they have been slowly uplifted over millions of years. During a survey of this site in 1991, evidence of a PA-Threatened animal species was documented. This site has the potential for a variety of species of special concern, but has been severely degraded by pollution from smelter operations on the northeast side of the ridge. Disturbances involve pollution from past smelter operations.
- Mahoning Creek Wetlands (Mahoning Township and Schuylkill County) – This locally significant site is comprised of a mixture of wetland types grading one into another. The site provides important breeding habitat for amphibians, reptiles, birds, and a host of wetland plant species. Disturbances involve a recent attempt to fill and drain the wetlands.












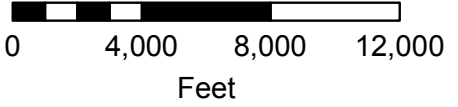
Map D.4-9: Important Natural Resources

Legend

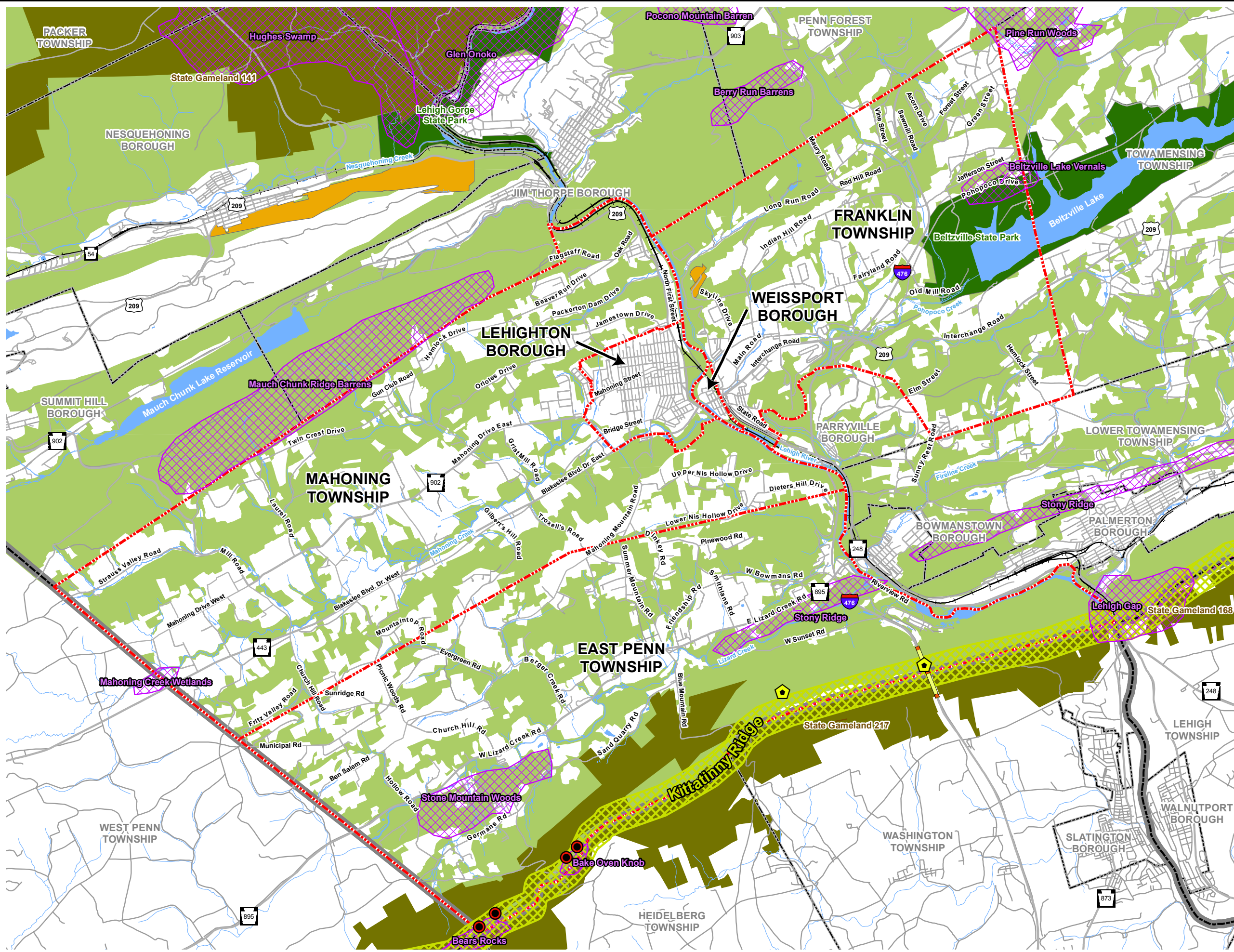
-  Conservation Easement
-  Natural Areas Inventory Site
-  Important Bird Area
-  State Park
-  State Game Land
-  Woodland

Ecological Conflict Potential with Wind Energy Development

-  Severe
-  Moderate
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
-  Rail Line



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- Pine Run Woods (Franklin, Penn Forest, and Towamensing Townships) – This site contains a PA-Threatened plant species and a rare or uncommon scrub oak shrubland natural community. The biggest threat to this site is development within the watershed.
- Stone Mountain Woods (East Penn Township) – This site includes a PA-Threatened plant species. Threats include invasive species, disturbances involve gypsy moth defoliation and an off-road vehicle trail.
- Stony Ridge (East Penn and Lower Towamensing Townships) – This site is an erosional remnant natural feature considered an outstanding scenic geologic feature of Pennsylvania (see Outstanding Geological Features above). The biggest threat to this area is land development.

Recommendations from the NAI for the protection of these important natural areas include the following:

- Consider conservation initiatives for natural areas on private land (e.g. – conservation easements; leases, management agreements, and mutual covenants; fee simple acquisition; zoning ordinances).
- Prepare management plans that address species of special concern and natural communities.
- Protect bodies of water.
- Provide for buffers around natural areas.
- Reduce fragmentation of surrounding landscapes.
- Encourage the formation of grassroots organizations.
- Manage for invasive species.

*Important Bird Areas*⁴³

Habitat loss and fragmentation are the most serious threats facing bird species around the world, across American and in Pennsylvania. Unless the rapid destruction and degradation of habitat is slowed, populations of many birds may decline to dangerously low levels. The Important Bird Area (IBA) program was established, originally in Europe in the 1980s, to help reverse declining trends in bird populations. An IBA is a site that is part of a global network of places recognized for their outstanding value to bird conservation.

The National Audubon Society administers the IBA program in the United States. Formed in 1996, the Pennsylvania IBA program was the first state-wide program in the country. In the region, Blue Mountain-Kittatinny Ridge is one of only two IBA sites in Carbon County (Map D.4-9). The Kittatinny Ridge is the premier raptor migration corridor in the northeastern United States and one of the leading such sites in the world. The ridge funnels thousands of southbound migrants during the fall, with lesser numbers also following the ridgeline north in the spring. Other species in addition to raptors migrate through, including Ruby-Throated Hummingbirds and Monarch Butterflies.

The 185-mile long ridge serves as a vital link in the Appalachian Forest that stretches the length of the eastern United States, providing critical high quality interior-forest for dozens of species

⁴³ <http://pa.audubon.org/iba/>, July 9, 2010.

of songbirds, mammals, reptiles and amphibians. It also protects important drinking water supplies and stream habitat, and includes 160 miles of the Appalachian National Scenic Trail.

The Kittatinny Ridge Project, led by Audubon Pennsylvania, is a collaborative effort of local, regional, and state organizations and agencies to focus public attention on the importance of the ridge through Pennsylvania. It promotes conservation activities to protect the ridge from further habitat loss, fragmentation, and inappropriate land use. The Kittatinny Ridge Conservation Corridor, which includes the ridge and a buffer area on both sides, covers all five municipalities in Central Carbon County.

*Wind Energy and Wildlife*⁴⁴

Due to its prominent and high elevation, the Kittatinny Ridge is an attractive site for the placement of wind turbines, which may conflict with its role as an important migratory bird route. A recent study by the Center for Rural Pennsylvania identifies municipalities in which there is a potential conflict between commercially viable wind energy installations and wildlife habitats.

Wind turbines and wind farms offer the promise of emissions-free energy, but the tall structures present threats to wildlife, particularly birds and bats, by the airspace affected by the turbine blades. In some cases, the number of birds and bats killed by wind turbines has caused alarm over the vulnerability of species populations. To help municipalities develop land use policies that consider such threats, the Center for Rural Pennsylvania Area sponsored research to highlight areas where the competing demands of wind development and wildlife protection are likely to occur.

The research compared data on areas where wind speeds are considered viable for commercial purposes and data on natural heritage areas considered important because of the habitats located there. Based on this research, six (6) areas of potential ecological conflict with wind energy development were identified in the region, all along Blue Mountain in East Penn Township (Map D.4-9). Two (2) of these sites were identified as moderate conflicts, while four (4) were identified as severe conflicts.

This portion of East Penn Township is designated as a Rural District in the zoning ordinance, with public utility buildings and structures permitted as a special exception by the Zoning Hearing Board.

*Historic Resources*⁴⁵

Much of Carbon County consists of land Pennsylvania obtained from the Delaware Indians in 1737 by the Walking Purchase. By 1746, the Moravian Brethren Society had entered the region and started converting the local Delaware Indians to Christianity, establishing the Gnaden Huetten (“tents of grace”) mission near the juncture of the Lehigh River and Mahoning Creek in what is now Lehigh Township. As the settlement grew, missionaries established New Gnaden Huetten along the east side of the Lehigh River at present day Weissport Borough. In 1755 the original mission was attacked and destroyed by the Delaware Indians. Following the massacre,

⁴⁴ *Wind Energy vs. Wildlife: New Resources Help Townships Identify Potential Conflicts*, Pennsylvania Township News, April 2010.

⁴⁵ www.phmc.state.pa.us/bah/dam/counties and www.delawareandlehigh.org.

several forts were built along Blue Mountain, including Fort Allen, built by Benjamin Franklin and his men in January 1756 in Weissport Borough. The fort’s original well is a local landmark. By 1794, Revolutionary War veteran Jacob Weiss and gun maker William Henry II owned most of the land on which Lehighon Borough is located today. The settlement that arose, named after the Lehigh River, became a popular rest stop for those traveling along the road from Berwick to Easton. It wasn’t until the Lehigh Canal was completed in 1829, however, that the area began to grow and thrive. Weissport Borough served as a major building site for many of the boats used on the canal. The building of the Lehigh Valley Railroad in 1851, including a major repair facility, and the old Central Railroad of New Jersey helped to increase the local population and employed several thousand workers.

The municipalities in the region were incorporated in the following order:

- East Penn Township 1768 (previously part of Towamensing Township)
- Mahoning Township 1842 (previously part of East Penn Township)
- Franklin Township 1851 (previously part of Towamensing Township)
- Lehighon Borough 1866 (previously part of Mahoning Township)
- Weissport Borough 1867 (previously part of Franklin Township)

Carbon County was incorporated in 1843 from parts of Northampton and Monroe Counties.

Historic buildings contribute to the region’s character, sense of place, and economic vitality; and neglect or loss of these resources is a threat to the identity of the region. The Pennsylvania Municipalities Planning Code requires that zoning ordinances protect historic resources.

National Register of Historic Places

There are two (2) structures in the region listed on the National Register of Historic Places: the Carbon County section of the Lehigh Canal and the Harrity Covered Bridge at Beltzville State Park (Map D.4-10 and Table D.4-9). As part of the Delaware and Lehigh National Heritage Corridor’s Cultural Heritage and Corridor Management Plan, a *Historic Resources Study* was prepared in 1991 to identify historical resources in the corridor which relate to its history and associated historical contexts (contact period/frontier settlement, agriculture, industry, and transportation) and to evaluate all identified resources as eligible or ineligible for the National Register.

There are six sites deemed to be eligible for the National Register and additional 13 whose status for the National Register is “undetermined”.

















Table D.4-9: National Register Historic Resources

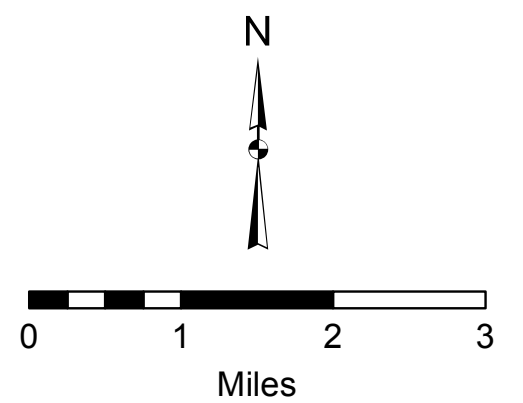
National Register Status	Municipality	Key No.	Historic Name	Address	Resource Category	Date Built
Listed	Franklin Township and Weissport Borough	1313	Carbon County Section of Lehigh Canal		Structure	1816
Listed	Franklin Township	1305	Harrity Covered Bridge		Structure	1841
Eligible	East Penn Township	144291	Appalachian Trail		District	1926, 1933
Eligible	East Penn Township	111755	Former Lehigh Valley Railroad Bridge over Lizard Creek	Riverview Road	Structure	unknown
Eligible	Franklin Township	124950	Central Railroad of New Jersey/Lehigh & Susquehanna Division		District	1837
Eligible	Franklin Township	155201	Mahoning Valley Interchange - Pennsylvania Turnpike		Structure	1957
Eligible	Lehighton Borough	112833	Lehighton Area Junior High School	3rd St.	Building	unknown
Eligible	Lehighton Borough	131824	Bridge Street Bridge	SR 7406	Structure	1890
Undetermined	East Penn Township, Lehighton Borough, and Mahoning Township	156109	Lehigh Valley Railroad		District	unknown
Undetermined	Franklin Township and Weissport Borough	140969	Weissport Historic District		District	1810
Undetermined	Franklin Township, Lehigh Borough, Mahoning Township, and Weissport Borough	155754	Central Railroad of New Jersey		District	unknown
Undetermined	Franklin Township	83612	Rickert's Coal Yard	Canal Rd.	Building	1829
Undetermined	Lehighton Borough	D&L	Baer Silk Mill	Bridge St. & S. 7th. St.	Building	1898
Undetermined	Lehighton Borough	83605	The Hitchin' Post	336 Iron St.	Building	1880
Undetermined	Lehighton Borough	D&L	Lehighton Lace Mill	Bridge St. near 7th	Building	1908
Undetermined	Lehighton Borough	83602	Zion United Church of Christ	225 Iron St.	Building	1876
Undetermined	Lehighton Borough	112831	unknown	215 S. 3rd. St.	Building	1890
Undetermined	Lehighton Borough and Weissport Borough	D&L	Central Railroad of New Jersey/Lehigh & Susquehanna Division Bridge #53		Bridge	unknown
Undetermined	Mahoning Township	101509	William B. & Carol A. Kloiber Residence	497 Ashtown Dr.	Building	1850
Undetermined	Mahoning Township	D&L	Packer Silk Mill	off Rt. 209	Building	unknown
Undetermined	Weissport Borough	83609	St. Paul's Evangelical Lutheran Church	305 White St.	Building	1893

Source: Pennsylvania Historical & Museum Commission, Bureau of Historic Preservation CRGIS system, July 2010; D&L National Heritage Corridor *Historic Resources Study*, 1991 (Key No. D&L).

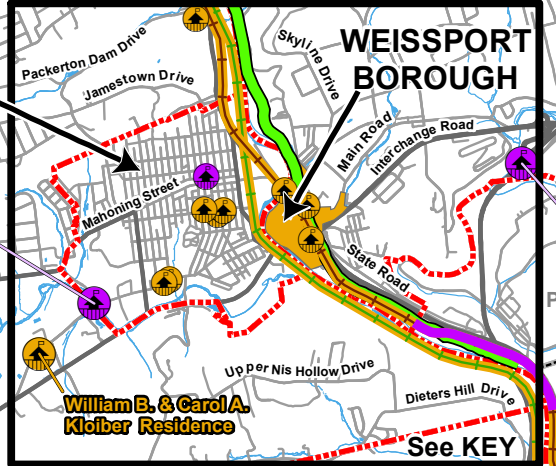
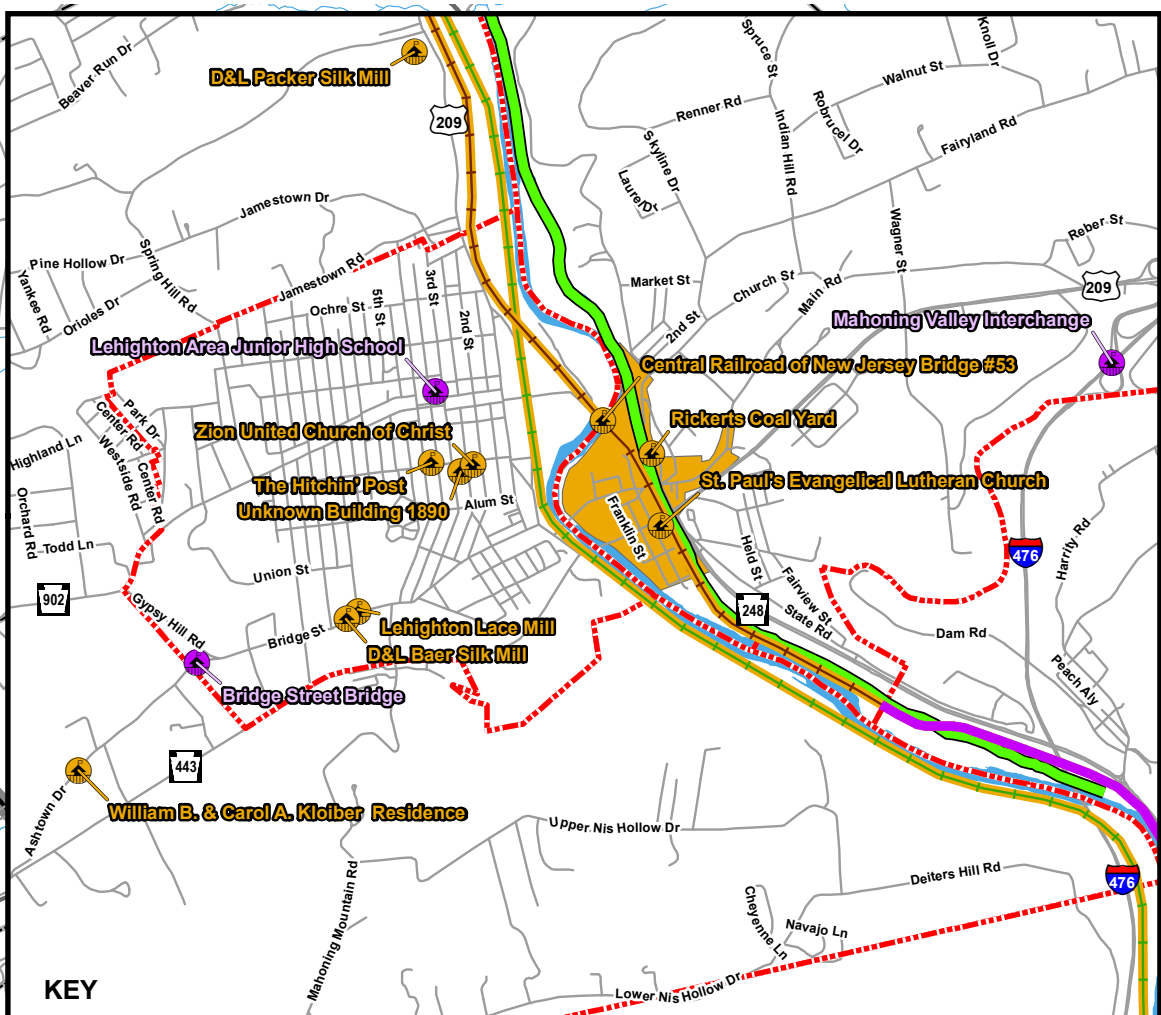
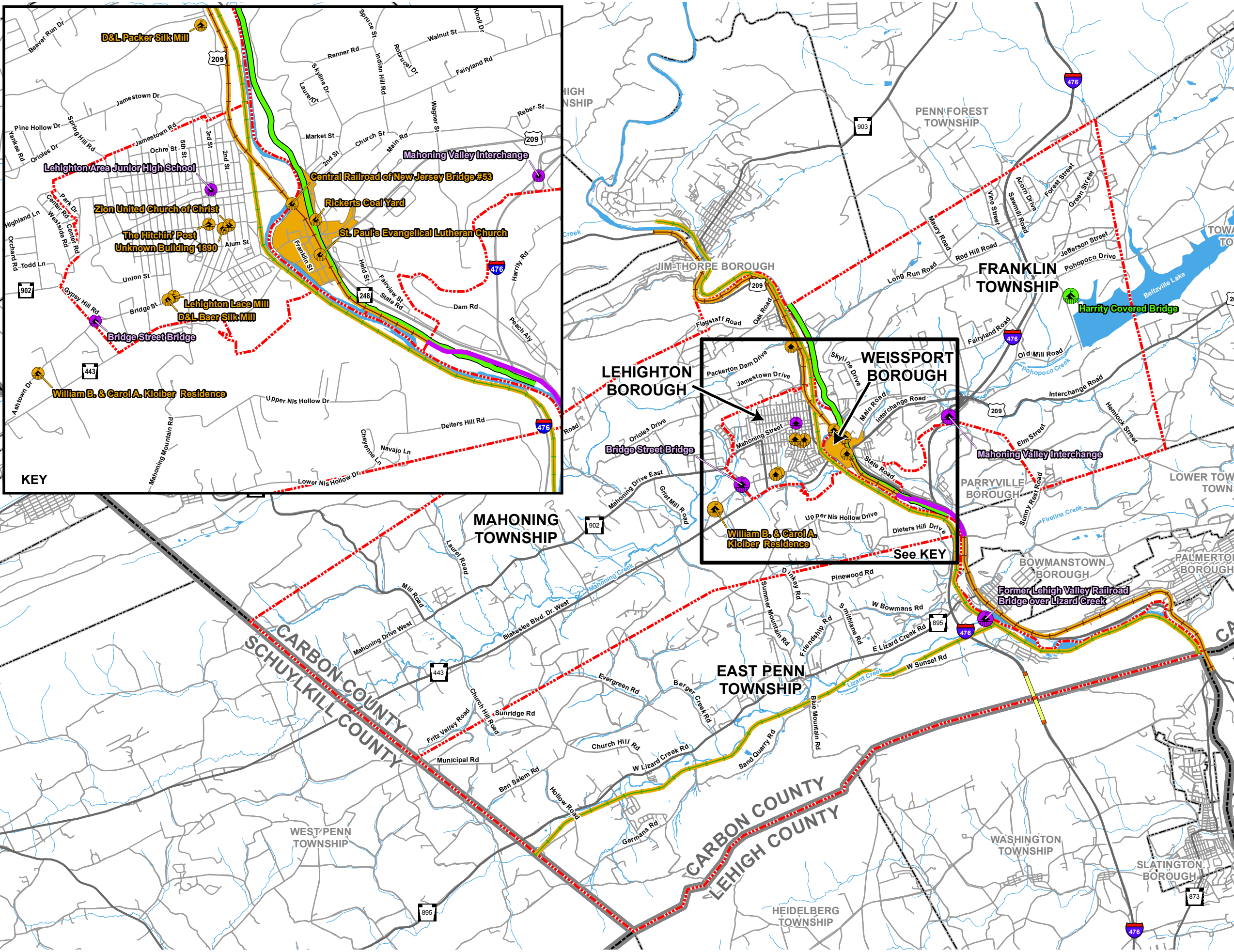
Map D.4-10: Historic Resources

Legend

-  National Register (NR)
-  Lehigh Canal (NR)
-  Eligible for NR
-  Central Railroad of New Jersey/Lehigh & Susquehanna Division Eligible for NR
-  Undetermined for NR
-  Central Railroad of New Jersey Undetermined for NR
-  Lehigh Valley Railroad Undetermined for NR
-  Weissport Historic District Undetermined for NR
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel



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Locally Important Resources

Other potentially historic sites in the region identified as part of this Plan are included in Table D.4-10. There are a total of 47 sites that are of local significance and may potentially be eligible for National Register status. Major types of historic sites include one-room school houses, churches, and cemeteries.

Table D.4-10: Locally Significant Historic Resources

East Penn Township	Lehigh Township (continued)
Ben Salem Cemetery	First Ward School
Colonial House, Rt. 895	Gnaden Hueten Massacre Monument
Dinkey Memorial Cemetery	Grace Evangelical Lutheran Church
Indian Cemetery at Ashfield	House at Second & Alum Streets
Lehigh School	House at Third & Iron Streets
Miller's School	Lehigh High School
Peter's School	Lehigh Reviewing Stand
Stone Mountain School	Methodist Church (Cathedral Rocks)
West Bowmans Veterans Monument	Murphy's Store
Franklin Township	Park Fountain
Franklin Heights School	St. Peter's and Paul's Church
Kriss Pines Hatchery	Third Ward School
Old Grist Mill	Mahoning Township
People's Evangelical Congregational Church	Chapel Church
St. Paul's Lutheran Church	New Mahoning School
St. Peter's Evangelical Congregational Church	Normal Square Inn
Lehigh Borough	Oak Grove School/Grange
All Saints Church	Packerton High School
Bethany Church	Zion Lutheran Church (Packerton)
Citizens National Bank Building (White's Trading/Post Office)	Zion United Church of Christ Church
Ebenezer United Methodist Church	Weissport Borough
Engine Company No. 2	Fort Allen/Franklin Well
First National Pharmacy	Jacob's United Church of Christ Church
First Presbyterian Church	Weissport House
First Street Commercial District	Weissport School House
<i>Source: Central Carbon County Regional Comprehensive Plan Planning Committee, August 2010.</i>	

Delaware and Lehigh National Heritage Corridor

Heritage Areas are large geographic regions or corridors that contain a multitude of historic, recreational, natural, and scenic resources of state and national significance that collectively exemplify the heritage or history of Pennsylvania and the United States. The Delaware and Lehigh National Heritage Corridor was designated a National Heritage Area in 1988 and a State Heritage Park in 1993 and follows the historic canal and railroad transportation system through Luzerne, Carbon, Lehigh, Northampton, and Bucks Counties. The heritage area program represents a strategy for protecting historic resources that goes beyond the traditional focus on historic preservation of structures and sites to encompass the conservation of their historic,

cultural, and natural contexts. It was developed on the concept that the best way to preserve historic and cultural landscapes is through partnerships and community participation.

Current Planning and Zoning Policies

The Pennsylvania Municipalities Planning Code acknowledges the importance of historic resources and requires that historic resources be protected through the zoning ordinance. Section 603.(g)(2) states that “zoning ordinances shall provide protection of natural and historic features and resources”. Currently, none of the five municipal zoning ordinances in the region specifically address historic resources and their protection.

Principle 5 – Build and Maintain a Livable Community with Good Services and Facilities

Community facilities and services are often what attract new residents to a community. Community facilities are those buildings, structures, and lands that contain programs and activities that essential to municipal government operations and/or provide necessary services to residents of the region. Some community facilities and services are provided by municipalities and government agencies, while others are provided by non-profit organizations or private entities.

The delivery of community services depends on the needs of the population, the philosophy of municipal officials, financial resources available, and the extent of regional cooperation. Except for road maintenance (which is covered under a separate chapter), all community facilities and services in the region were rated “adequate” for meeting the needs of area residents in the citizen survey (see Chapter 2). Services rated the most adequate were trash removal, electric service, and ambulance services.

Financing for community facilities and services can be funded through taxes, donations, and/or fees; thereby tailoring activities and expenditures to specific needs and available resources. Fire protection and libraries received the most votes in the citizen survey for increased funding.

A joint or regional approach to providing such facilities and services allows several municipalities to share in the cost of these facilities and services, particularly when the costs to provide adequate and efficient services are too high for a single municipality. Services receiving the most votes for regional consideration in the citizen survey included police protection, recycling, parks and recreation, and road maintenance/snow removal.

Community Facilities and Services Provided by Municipalities

Services provided by the municipalities in the region and those over which they have some control include:

- Electric service (i.e. – Lehighton Borough)
- Municipal administration and public works
- Police protection
- Public sewage service
- Public water service
- Solid waste collection and disposal

Other important community facilities and services needed to make the region an attractive community to live in are: emergency services (ambulance and fire protection), schools, health care and medical services, and utilities. Although the municipalities may have a role by providing financial support, governmental cooperation, and service agreements, these services are generally provided by others. Municipalities may not have direct responsibility for some community facilities and services, but land use planning and zoning will have an impact on the location and extent of many services.

Park and recreation facilities are covered separately in this chapter since they are provided by a variety of entities, including municipalities, school districts, and commercial businesses. A freestanding Park, Recreation, Greenway, and Open Space (PRGOS) Plan was prepared concurrently with this regional comprehensive plan to focus on the park and recreation needs of the region.

Electric Service⁴⁶

Electric service in the region is provided by a private utility company, Pennsylvania Power and Light Company (PPL), except in the Borough of Lehigh. Lehigh Borough owns the Lehigh Power and Light Company, which supplies electric service to approximately 3,000 customers in the Borough. The company purchases its electricity through a consortium of 15 municipalities from AMP (formerly Amp Ohio) at a bulk rate, with a small portion received from Allegheny Energy. The revenues from this service are used as an alternative source of revenue to pay for services, which are traditionally paid for through taxes. The Borough has the second lowest real estate tax rate of the 12 boroughs in the County.⁴⁷

The Borough has received a license to install a hydroelectric generating station at the Beltzville Lake Dam, but is currently attempting to sell the license since the project is no longer deemed feasible.

Municipal Administration and Public Works

Administrative and public work employees for the five municipalities in the region perform the general operations and road maintenance activities for each of the municipalities. The location of each of the municipal offices is included on Map D.5-1.

Lehigh Borough employs the highest number of municipal employees in the region as a result of its larger population and the higher level of services required of a borough. In addition to 21 full-time office and public works employees, of which 5 are employed by Lehigh Power and Light, the Borough employs 30 seasonal workers during the summer to operate and maintain the park and recreation facilities and programs (Table D.5-1).



⁴⁶Email correspondence from Brenda Koons, Secretary, Lehigh Borough and Lehigh Power and Light, August 5, 2010.

⁴⁷<http://www.carboncounty.com/faq.htm>, September 7, 2010.

Table D.5-1: Municipal Employees

Municipality	Address/Location	Number of Employees											
		Administration		Public Works/Roads			Trash		Parks			Electric	
		FT	PT	FT	PT	S	FT	PT	FT	PT	S	FT	PT
East Penn Township	167 Municipal Road	1	1	2	2	0	n.a.	n.a.	0	0	0	n.a.	n.a.
Franklin Township	900 Fairyland Road	2	1	4	1	1	1	2	0	0	0	n.a.	n.a.
Lehighon Borough	1 Constitution Avenue	6	0	6	0	3	n.a.	n.a.	1	0	30	5	0
Mahoning Township	2685 Mahoning Drive East	1	0	4	0	3	n.a.	n.a.	0	0	0	n.a.	n.a.
Weissport Borough	440 Allen Street	0	1	0	2	0	n.a.	n.a.	0	0	0	n.a.	n.a.
<i>FT = full-time, PT = part-time, S = seasonal, n.a. - not applicable.</i>													
<i>Source: municipal secretaries, August 5, 2010.</i>													

The municipal administrations in the region currently have adequate space and staff. Their needs are reviewed annually to assess future needs and to assure that residents receive an adequate level of service. Since a majority of the respondents to the citizen survey rated the maintenance of local roads as “inadequate”, the number of road department employees and road equipment needs will need to be evaluated to determine how the level of service can be improved. The sharing of expensive but infrequently needed road equipment already occurs between municipalities. Opportunities for additional regional cooperation with road maintenance equipment should be explored to increase service with minimal costs.

Police Protection

Of the five municipalities in the region, only Lehighon Borough and Mahoning Township’s police departments have the required number of staff positions to provide full-time coverage. The other three municipalities in the region maintain part-time police coverage, with the Pennsylvania State Police Lehighon Troop N providing coverage during times when local police are not on duty. The number of municipal police officers in the region is included in Table D.5-2.

Table D.5-2: Municipal Police Manpower















Municipality	Police Chief/Officer in Charge (OIC)	Coverage	Number of Officers	
			FT	PT
East Penn Township	James Danner	PT	1	3
Franklin Township	Thomas Beltz	PT	4	4
Lehighon Borough	Joseph Lawrence	FT	9	3
Mahoning Township	Kenneth Barnes	FT	5	5
Weissport Borough	Steve Mansueto	PT	0	1
TOTAL			19	16
<i>FT = full-time, PT = part-time.</i>				
<i>Source: municipal secretaries and municipal police departments, August 2010.</i>				

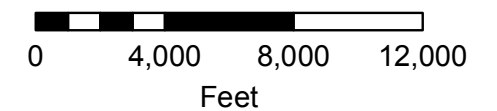
There are a variety of formulas used to more accurately calculate police manpower needs. Some are complicated and involved, while others are rather simple and easily applied to the average community. The Governor’s Center for Local Government Services utilizes a method based on the actual complaint or incident experience in the community.⁴⁸

⁴⁸ *Administering Police Services in Small Communities*, Governor’s Center for Local Government Services, October 2004.

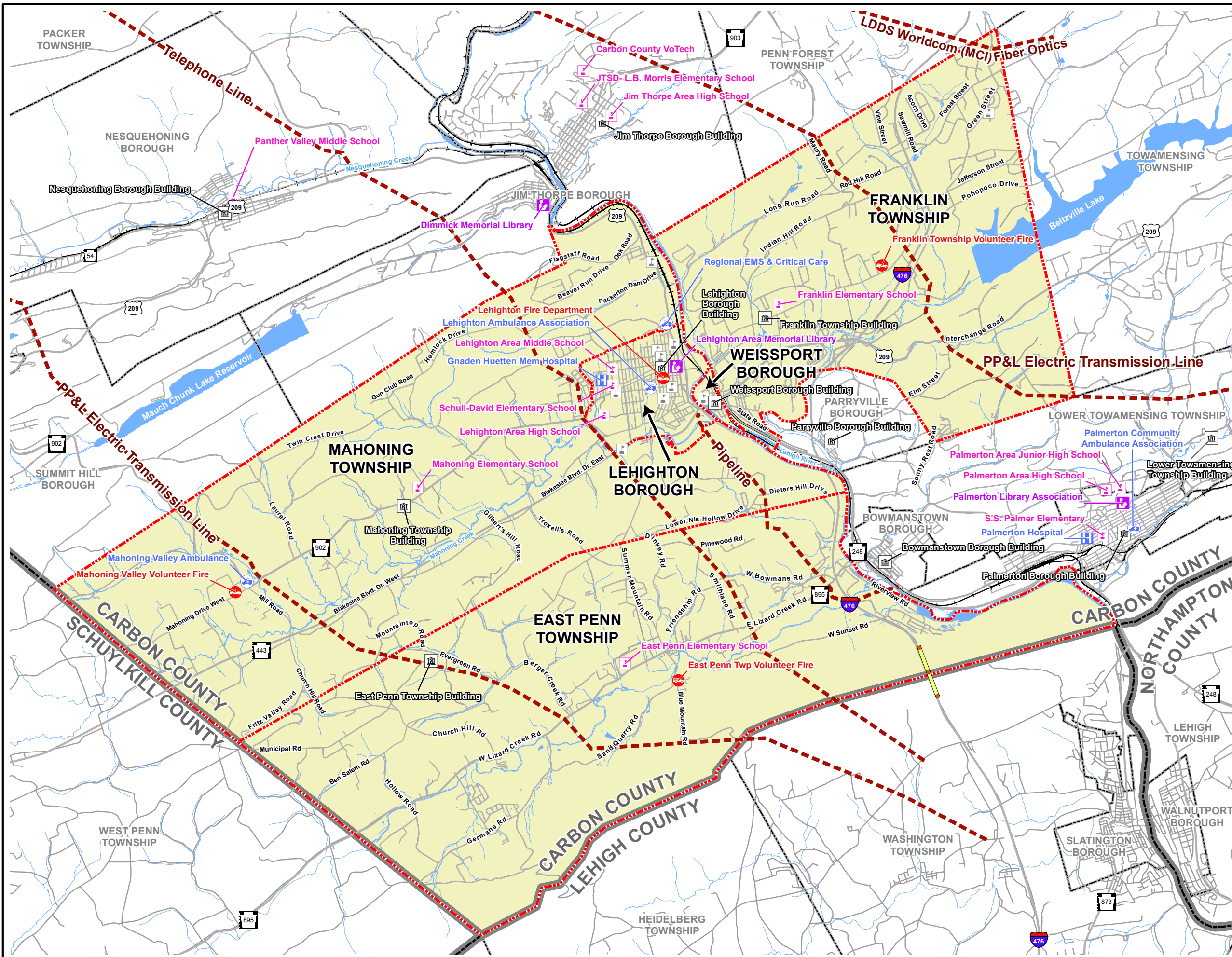
Map D.5-1: Community Facilities and Services

Legend

-  Public School
-  Municipal Building
-  Fire Station
-  Ambulance Station
-  Library
-  Hospital
-  Private School
-  Major Utility Transmission Line
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Road
-  Lehigh Tunnel
-  Rail Line



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The number of calls for police services in the region for the past three years is included in Table D.5-3. These include all calls received by the Carbon County Communications Center requesting police services. The call volume has actually decreased in all of the municipalities except for Mahoning Township. Based on the 2009 population estimates included in Appendix C, there were 0.71 calls per capita in the region in 2009.

Table D.5-3: Call Volume for Police Services

Municipality	2007	2008	2009
East Penn	1,385	1,133	914
Franklin	3,511	3,350	2,749
Lehighton	6,172	5,831	5,430
Mahoning	2,609	2,570	2,879
Weissport	948	1,295	654
TOTAL	14,625	14,179	12,626
Source: Gary L. Williams, Jr., Carbon County 911 Director, August 30, 2010.			

To determine the police manpower needs according to these call volumes, the following formula is applied:⁴⁹

- Step 1.** Multiply the total number of calls by 0.75 (45 minutes). It is generally conceded that 45 minutes is the average time necessary to handle a complaint or incident.
- Step 2.** Multiply by three (3) to add a buffer factor and time for preventive patrols. General experience has shown that about one-third of an officer's time should be spent handling requests for services, so other requirements for servicing police vehicles, personal relief, work breaks, and supervision must be considered.
- Step 3.** Divide the product by 1,760 or the number of hours an average police officer is available for duty during the year. This is based on a normal 40-hour work week and accounts for day off for vacation, holidays, court dates, training, sick leave, and miscellaneous leave.

According to this analysis, it indicates that a total of 16 patrol officers are needed in region, not including supervisors, administrators, or specialists (Table D.5-4). Compared to the manpower data in Table D.5-2, this is less than the existing number of 19 full-time officers and 16 part-time officers. It indicates that the region's police coverage is currently more than adequate for the call volume experienced.

When analyzing the adequacy of police services in the region, the member municipalities can work to establish categories of service standards, such as response times, specific criminal activity, and citizen satisfaction. A vast majority of those who responded to the citizen survey rated police protection in the region as adequate.

⁴⁹ *Administering Police Services in Small Communities*, Governor's Center for Local Government Services, October 2004.

Table D.5-4: Recommended Police Manpower Needs

Municipality	Call Volume - 2009	Hours Required to Respond to Calls	Buffer Factor	Total Manpower Needs
East Penn	914.0	685.5	2,056.5	1.2
Franklin	2,749.0	2,061.8	6,185.3	3.5
Lehighton	5,430.0	4,072.5	12,217.5	6.9
Mahoning	2,879.0	2,159.3	6,477.8	3.7
Weissport	654.0	490.5	1,471.5	0.8
TOTAL	12,626.0	9,469.5	28,408.5	16.1

Source: Administering Police Services in Small Communities, Governor's Center for Local Government Services, October 2004.

Factors affecting the police departments in the region include demands for traffic control (particularly during the tourism and recreational seasons), commercial development, budget limitations, the judicial process, and decreases in state and federal funding. A new emphasis on Homeland Security and state requirements have placed greater attention on public safety, requiring additional training and funding for training.

An issue facing the region's municipalities will be whether to consider a regional police service. Police protection did receive the most votes for regional consideration in the citizen survey and the manpower needs analysis indicates that a duplication of services may exist due to the number of part-time officers currently being utilized.

Aside from the level of service issue, the cost to municipalities of a local or regional police force will need to be considered. Upon request, the Pennsylvania Department of Community and Economic Development (DCED) will prepare a study on the feasibility of regional police service. If two or more municipalities regionalize their police operation, DCED's Regional Police Assistance Grant Program will provide grants up to \$99,000 for the start-up of consolidated police departments for a period of up to three years. DCED also provides technical assistance in the management of municipal police services.

Public Sewage Service

Generally, the major wastewater disposal problems in the region were resolved in 2002 with the construction of the new regional wastewater plant by the Central Carbon Municipal Authority and the extension of the public sewer system to areas with failing on-lot systems. By all accounts, these efforts have eliminated all clusters of failing septic systems in Franklin and Mahoning Townships. In addition, Weissport Borough corrected its infiltration problem by abandoning the existing gravity sewer system and installing a low pressure sewage collection system.



East Penn Township, more recently, corrected its only major area of failing septic systems by installing a sewage collection system to serve about 107 homes in the West Bowmans area of the Township, which is served by the Bowmansville Wastewater Treatment Plant.

The creation of the Central Carbon Municipal Authority in 2000 was the first step in providing the framework for a regional solution to a variety of local wastewater problems. The Authority is comprised of Lehigh and Weissport Boroughs and Franklin and Mahoning Townships. The construction of the treatment plant in 2002 allowed for the abandonment of the Lehigh Borough facility, which was constructed in 1950, and the extension of sewers into the more densely developed portions of Franklin and Mahoning Township (Map D.5-2). The plant was designed for a capacity of 1.6 million gallons per day (gpd), with allocations made to the individual municipalities as indicated in Table D.5-5.

Table D.5-5: Central Carbon Municipal Authority Allocations and Capacity

Municipality	Gallons per Day (gpd)		
	Allocation	Current Average Usage	Available Capacity
Franklin Township	179,200	114,000	65,200
Lehigh Borough	1,265,600	736,111	529,489
Mahoning Township	110,400	60,146	50,254
Weissport Borough	44,800	23,410	21,390
Central Carbon County	1,600,000	933,667	666,333

Source: Kevin Lilly, plant superintendent, August 2010.

Currently, the average flow to the plant is over 933,000 gallons per day, with significant peak flows to the plant during wet weather. The highest monthly average over a three month period, the measurement that DEP uses to determine if corrective action needs to be taken, was 1,093,667 GPD in 2009. This is still well below the capacity of the plant and indicates that it can accommodate significant future growth.

Although it appears that the long term problem with infiltration of water into the system in Weissport Borough has been resolved with the installation of their new pressurized sewer system, Lehigh Borough is still working toward correcting their inflow and infiltration problems.

Community Wastewater Systems

There are five (5) community wastewater systems serving the area (Table D.5-6), in addition to the Bowmansville and Central Carbon Municipal Authority public sewer systems.

Table D.5-6: Community Sewage Systems

Site Name	Location	Number of Units/ Gallons Per Day (gpd)	Stream Discharge
Mahoning Valley Nursing & Rehabilitation Center	Mahoning Township	145/20,000	Mahoning Creek
Nis Hollow Estates	East Penn Township	120/18,000	u.n.t. Lehigh River
Northside Heights	East Penn Township	107/30,000	Lizard Creek
Otto's Camping Resort (abandoned)	Franklin Township	5,000 gpd	Pohopoco Creek
Tidewood Corporation (Country Club Estates)	Mahoning Township	80/12,500	u.n.t. Mahoning Creek

Source: Pennsylvania Department of Environmental Protection and municipal Act 537 plans. u.n.t. = unnamed tributary.

All of these systems are “package plants” which discharge their treated effluent directly into local streams. These types of stream discharge systems contribute to a degrading of the stream

quality and a net loss in groundwater, since the water from wells on site is eventually discharged directly to a stream without any groundwater recharge. The regulations covering discharges to streams have become increasingly more stringent both at the DEP and DRBC levels. At a minimum, stream discharge systems will be difficult, if not impossible, to receive permits if over 10,000 gpd and/or in the seven (7) watersheds currently designated or proposed as Exceptional Value (EV) streams (see *Principle 4 – Conserve the Region’s Natural and Cultural Resources*). Future community sewage systems should be either spray or drip irrigation type systems which provide improved benefits for groundwater recharge and stream quality.

Future Public Sewage Needs

Since the vast majority of areas with failing septic systems have been addressed by the recent sewer system expansions, the wastewater needs of the region only need to focus on meeting future demand from residential and commercial development. Population projections indicate that the population in the region will increase between 7 and 20 percent by the year 2030. While not all of this development will occur in areas with access to public sewer, if 90% of it occurs through connections to public sewer, it would result in additional flows of between 85,000 gpd and 240,000 gpd. Considering only the Central Carbon treatment facility, which has available capacity of about 667,000 gpd, the future needs of the area should be adequately accommodated overall. However, the difficulty may be with the allocation assigned to each municipality and the available capacity remaining for that municipality. Franklin Township, for example, has the largest projected population increase (up to 1,825 additional people by the year 2030). This could result in additional flows of 123,000 gpd, exceeding their available capacity by 58,000 gpd.

Some of the future growth in the region can also be expected to be met using small community wastewater systems similar to those existing systems identified. While none of the existing systems were out of compliance when DEP personnel were interviewed in August 2010, some of them have numerous notices of violation. One concern for the future is the long-term maintenance and management of these systems and any new systems. DEP does evaluate the management proposed for any new community system as part of the Act 537 sewage facilities planning and permitting process and usually encourages, at a minimum, some municipal oversight of these systems.

On-Lot Sewage System Management












It is planned that a large part of all three townships will need to rely upon individual on-lot wastewater disposal systems. DEP has been promoting a more active management or oversight of those systems by municipalities as a way of extending the life span of these systems, protecting groundwater quality, and reducing the need to extend public sewers. East Penn Township has addressed this issue in its Act 537 Sewage Facilities Plan by requiring proof from property owners that they have maintained (pumped) their system routinely. Based on interviews with the Sewage Enforcement Officer for the Township, there has been no major problems with compliance or incidents of system failures under this pumping program.

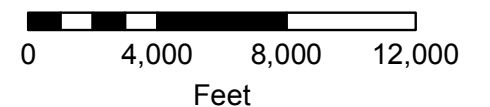
Public Water Service

There are only one public water supply system in the region at this time. The Lehighon Water Authority operates the water system under a lease agreement with Lehighon Borough, which

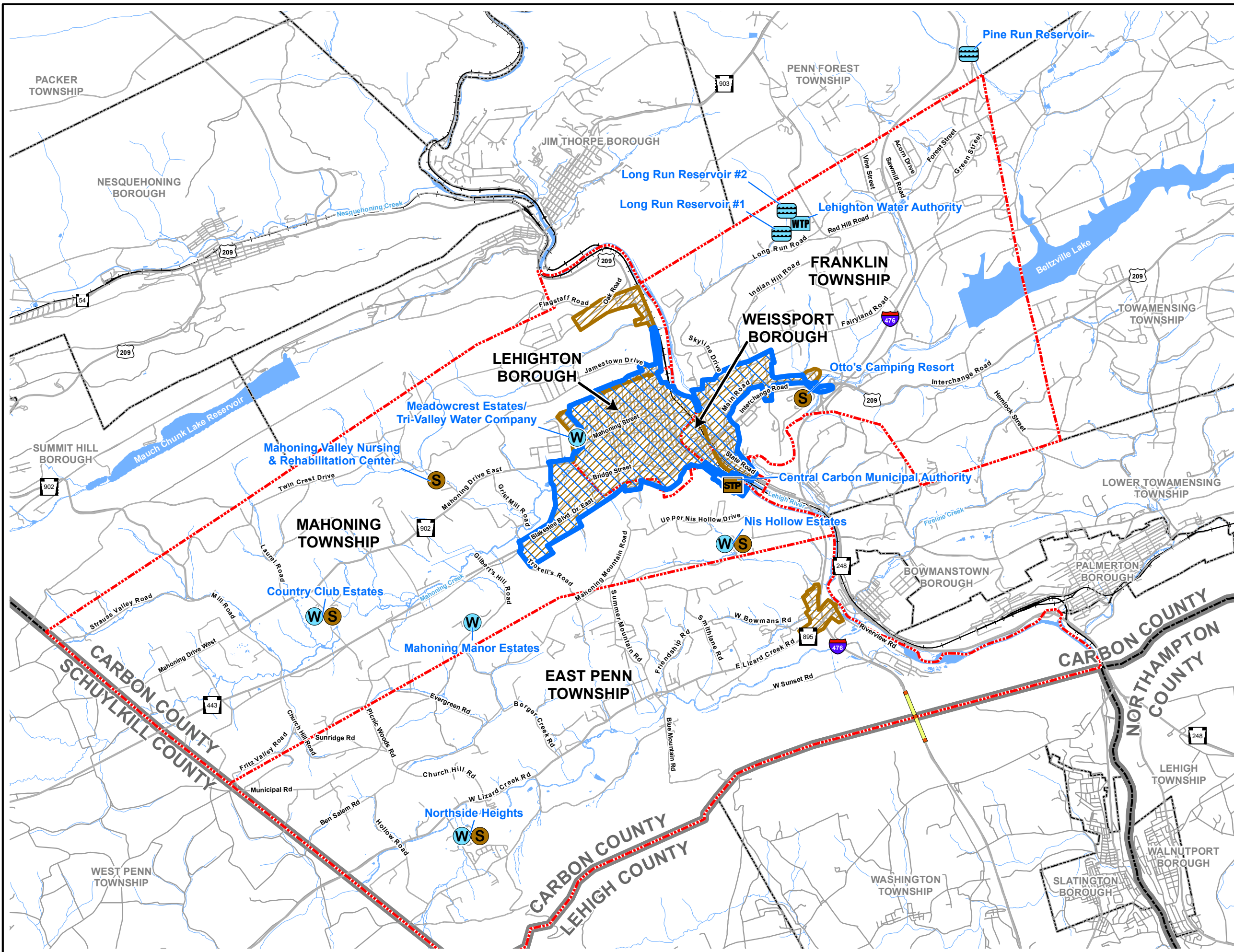
Map D.5-2: Sewer & Water Facilities

Legend

-  Public Water Service Area
-  Lehigh Water Authority Treatment Plant
-  Lehigh Water Authority Reservoir
-  Public Sewer Service Area
-  Central Carbon County Municipal Authority Sewage Treatment Plant
-  Community Water System
-  Community Sewer System
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel
-  Rail Line



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owns the system. The system currently serves about 3,350 residential customers and 431 commercial and industrial customers in Lehigh and Weissport Boroughs and parts of Mahoning and Franklin Townships (Map D.5-2). An extension of the system to the new Walmart on PA Rt. 443 in Mahoning Township has recently been completed.

The Lehigh Water Authority was originally formed as a private water system serving unfiltered surface water from Long Run. Much of system is over 100 years old and was acquired by the Borough in 1940. A new filtration plant was added in 1994. The Borough owns about 5,000 acres of land in Franklin and Penn Forrest Townships and Jim Thorpe Borough used to protect its water sources.

Demand on the system ranges from about 800,000 gallons per day (gpd) to about 1,000,000 gpd. It is reported to be at or near its maximum capacity based on the storage capacity of the three (3) reservoirs supplying the system (Long Run #1, Long Run #2, and Pine Run). The Authority also has a permit to withdraw up to 1,600,000 gpd from the Lehigh River, but it has only been used during drought conditions when the reservoirs are low and because the water filtration plant can only treat the water when the river is at lower flows and contains less suspended solids.

The user rates for the system, based on a daily water use of 200 gallons per day, is \$576 per home per year. This is at the high end of water user fees. For example, users in Jim Thorpe Borough pay about \$475 per year and customers of the Lehigh County Authority pay about \$196 per year. The rates are set up to allow for reduced costs when higher amounts of water are used. For example, the first 1,000 gallons of water used costs \$14.31 per month. This is typically referred to as the base rate and it is meant to cover the basic costs of providing water. For the next 4,000 gallons of water used, the cost is \$7.29 per 1,000 gallons per month. Above that, for the next 15,000 gallons, the cost is \$4.22 per 1,000 gallons. While this rate structure has been common in the past and is based on the known efficiencies of providing larger amounts of water to single customers, it is now being abandoned by many suppliers in favor of conservation based rates.

Conservation based rates, as recommended by the Delaware River Basin Commission, reverse the rate structure and charge more for those that use higher amounts of water. The intent is to encourage users to conserve water. In some cases, the base rate can be reduced providing a benefit to elderly customers who typically use less than the minimum amount of water. It can, however, have a negative impact on industrial and commercial customers who use large quantities of water. Bulk purchase agreements are often entered into with such users.

Conversion to conservation based rates is usually implemented over time to allow customers to adjust their water consumption. The primary goal of a conservation based rate structure is to encourage water conservation which could help to free up capacity for future needs. A typical conservation based rate structure based on monthly billing is as follows:

- Monthly minimum of \$5.15 for the first 1,000 gallons plus a fixed capital reserve of \$15.00
- Water consumption between 1,000 and 12,500 gallons is billed at an additional \$2.57 per 1,000 gallons
- Water consumption over 12,500 gallons is billed at an additional \$5.14 per 1,000 gallons,
- Water consumption in excess of 100,000 gallons is billed at \$10.28 per 1,000 gallons.

The system is burdened by existing debt and the need to replace about 70 percent of its aging water distribution system. The Authority’s debt includes an outstanding principle of \$1,153,000, with annual debt service payments of about \$181,200. This translates to an estimated \$45 per customer per year. The system contains about 30 miles of spun cast iron pipe and is experiencing roughening of the pipe interiors and the gradual reduction of the pipes inside diameter due to mineral deposits.

The issues facing the system, in addition to the aging distribution system, include an ongoing concern with the Turnpike passing through its watershed and addressing future demands.

The 1970 Franklin Study Water Study proposed using water from Beltzville Lake, which was under construction at that time, for a public water supply source. A 16 inch intake pipe was installed at the time of dam construction for the purpose of building a 500,000 gpd system, with provisions to increase capacity to 1,000,000 gpd.⁵⁰ That system was never built.

In 1998, the City of Bethlehem received approval for an emergency water withdrawal of 15 million gallons per day from Beltzville Lake to meet their system demands while the Wild Creek Reservoir was being repaired. That withdrawal also never occurred.

Small Community Water Systems

There are six (6) small community water supply systems permitted by DEP which serve approximately 1,161 people in the region (Table D.5-7). There are also numerous “non-transient non-community” systems (i.e. – systems that do not serve individuals year-round such as schools) and “transient non-community” systems (i.e. – systems serving different people daily such as restaurants, churches, and campgrounds) that are permitted by DEP in the region.

Table D.5-7: Community Water Systems

Site Name	Location of System	Estimated Population Served
Country Club Estates	Mahoning Township	41
Mahoning Manor Estates	Mahoning Township	90
Mahoning Valley Nursing & Rehabilitation Center	Mahoning Township	145
Meadowcrest Estates	Mahoning Township	210
Nis Hollow Estates	Mahoning Township	325
Northside Heights	East Penn Township	350
<i>Source:</i> Pennsylvania Department of Environmental Protection, October 2010.		

In reviewing the violation history of the systems and through discussions with DEP, most of the systems have some history of violations, but come quickly back into compliance. The trend in the regulation of water suppliers is toward more stringent requirements for existing regulated contaminants and the additional testing and possible treatment of new contaminants. For small water systems, the testing and reporting requirements are a significant burden, while the installation and operation of sophisticated treatment processes can be cost prohibitive and insurmountable.

⁵⁰ *Franklin Township Water Study*, prepared by Gilbert Associates, Inc., November 1970.

Future Water Needs

As indicated in the discussion on sewage facilities, the region’s population is projected to increase between 7 and 20 percent by the year 2030. While not all of this development will occur in areas with access to public water, if 90% of it connects to the public water supply, an additional demand of between 85,000 gpd and 240,000 gpd of water would result. While there is enough raw water available in the region to meet this demand, the problem will be with the lack of treatment capacity.

Solid Waste Collection and Disposal

In all municipalities of the region, except Franklin Township, solid waste collection and disposal is performed by private waste haulers. In Franklin Township, the Township collects solid waste from all properties except for commercial properties with dumpsters. The Township employs one full-time and two part-time employees as part of its trash service. In East Penn and Mahoning Townships, homeowners are responsible for contracting with a private hauler for trash service; while in the Boroughs of Lehigh and Weissport, the boroughs contract with a private hauler to provide trash service to their residents. Solid waste is disposed of at various County contracted landfills, none of which are located in the region or the County.

Pennsylvania Act 101 of 1988 requires municipalities with populations between 5,000 and 10,000 and more than 300 persons per square mile to implement curbside recycling programs by September 26, 1991. Among the goals of the Act are to reduce municipal waste generation and to recycle at least 25% of the waste generated. Lehigh Borough is the only municipality in the region mandated by Act 101 to have a recycling program, including a yard waste collection program. Recycling materials are collected at curbside by the private waste hauler contracted by the Borough. The recycling rate in 2009 was 11.1% (Table D.5-8). Yard waste in the Borough is collected through the County’s leaf vacuum service.

Table D.5-8: Recycling Data 2009

Municipality	Recycling Materials		Yard Waste	Notes
	Tons	Rate		
East Penn Township	74.44	4.4%	n.a.	voluntary curbside collection through homeowner contract with private hauler
Franklin Township	185.4	6.2%	n.a.	amount collected is estimated from drop-off center at Township Building
Lehigh Borough	530.74	11.1%	217.5	curbside collection mandated by Act 101, municipal contract with private hauler
Mahoning Township	1,523.34	45.1%	n.a.	voluntary curbside collection through homeowner contract with private hauler, high recycling rate due mostly to large commercial recycling
Weissport Borough	n.a.	n.a.	6.47	voluntary curbside collection through municipal contract with private hauler
TOTAL	2,313.92	17.5%	223.97	
<i>n.a. = data not available.</i>				
<i>Source: Carbon County Solid Waste Department, August 2010.</i>				

Recycling is voluntary in East Penn, Franklin, and Mahoning Townships, and Weissport Borough. Private waste haulers in the region offer recycling collection at curbside and County supplied Blue Bin recycling drop-off centers are located in Franklin and Mahoning Townships. The recycling rate in the region is 17.5%, ranging from 4.4% in East Penn Township to 45.1% in Mahoning Township.

Stormwater Management

Stormwater management is the process of planning for and managing water resources. Human activity that results in changes in land cover, or land use, often affects the quantity and quality of stormwater runoff from the land surface. These changes can produce potentially harmful impacts on water resources, such as:

- Increases in damages from flooding;
- Loss of dry weather stream flows;
- Degradation of streams and stream channels from scour, erosion, or deposition;
- Loss of aquatic habitat and species; and
- Loss of community water supplies.

These effects can be minimized or avoided through the careful preparation and implementation of comprehensive stormwater management plans.

Pennsylvania's Stormwater Management Act

In 1978, the Pennsylvania Stormwater Management Act (Act 167) was enacted by the State legislature to address the concerns with stormwater management. The Act requires that County governments prepare plans and ordinances for managing stormwater in the watersheds in their jurisdictions. After a stormwater management plan has been prepared, the municipalities within the watershed have an obligation to enact the ordinance that accompanies the plan. It is also important to note that the plans for controlling stormwater must include water quality controls, managing the quantity of water, and promote groundwater recharge.

In 1995, a stormwater management plan was prepared by the County and approved by DEP in accordance with Act 167. To date, East Penn Township has been the only municipality in the region to enact a stormwater management ordinance to implement the plan. The other four municipalities have stormwater management regulations in their subdivision and land development ordinances, but these are in compliance with the County's Act 167 Plan.

Act 167 brought a significant change to the approach to managing stormwater resulting from new development. Prior to the Act, the common approach was to manage stormwater runoff with retention and detention basins on the development site. There was little, if any, consideration given to dealing with the quality of the stormwater, recharging the groundwater aquifer, and including the impacts of and on the watershed. Therefore, it would be advisable for the municipalities of the region, with the exception of East Penn Township, to enact stormwater management ordinances to implement the County plan for the watersheds in the area. The ordinances should be based on current DEP guidelines and best management practices.

Municipal Separate Storm Sewer System (MS4)

The U.S. Environmental Protection Agency (EPA) is also involved in municipal stormwater management through the Municipal Separate Storm Sewer System (MS4) Permit Program. The

program has requirements to implement best management practices (BMPs) for the following areas:

- Implement a public education program;
- Include public involvement in decision making;
- Eliminate or treat discharges not composed entirely of stormwater;
- Require erosion and sediment controls for construction activities;
- Require BMPs to manage post-construction stormwater for new developments and redevelopment; and
- Require pollution prevention/good housekeeping for municipal operations.

Municipalities in Pennsylvania were required to implement the MS4 requirements by December of 2002. Weissport Borough has received a MS4 permit, while the other four municipalities applied for and were granted waivers until March 9, 2010. The Pennsylvania Department of Environmental Protection subsequently extended the expiration date to March 9, 2011. After this deadline, DEP will notify these municipalities what the permitting and reporting process will be for implementation. Failure to implement the MS4 program may be subject to enforcement action by DEP.

The MS4 program does present another opportunity for the five municipalities in the region to address stormwater management as a whole rather than individually. With the streams and related watersheds crossing municipal boundaries, it is natural extension to manage stormwater on a watershed basis.

Community Facilities and Services Provided by Other Organizations

Ambulance Service

Three (3) ambulance companies provide emergency medical service in the region (Map D.5-1): Mahoning Valley Ambulance and Palmerton Ambulance, which provide basic life support (BLS); and Lehighton Ambulance, which provides advanced life support (ALS). Lehighton Ambulance is a fully paid service and the only ALS service in the County. Mahoning Valley Ambulance is an all volunteer organization, while Palmerton Ambulance consists of a mix of volunteers and paid personnel. Call volumes for the last three years (Table D.5-9) reflect the range of service available, with Lehighton Ambulance receiving more than ten times the number of calls than the all volunteer Mahoning Valley Ambulance. As a fully paid service, Lehighton Ambulance maintains four (4) separate stations: Jim Thorpe, Lehighton Borough (main station), Penn Forest Township, and Summit Hill Borough.

Table D.5-9: Ambulance Calls 2007-2009

Ambulance Company	2007	2008	2009
Lehighton	6,239	6,541	6,696
Mahoning Valley	522	527	574
Palmerton	1,541	1,596	1,776
<i>Source: Gary Williams, Carbon County 911 Director, November 16, 2010.</i>			

Mutual aid agreements exist among all of the ambulance companies in the County, including those in adjacent counties (e.g. – Penn-Mahoning Ambulance in Schuylkill County, Northern

Valley Ambulance in Lehigh County, and Northampton Regional EMS in Northampton County). The local fire companies' QRS services also provide backup until an ambulance can arrive on scene. The Franklin Township QRS, for example, not only covers the Township, but also the Pennsylvania Turnpike 12 miles northbound and 14 miles southbound of the Mahoning Valley interchange.⁵¹

Regional EMS and Critical Care, located in Lehighon Borough, is a private ambulance company that provides non-emergency transport service to area residents.

Call volumes have increased over the last three years and with the continuing aging of the region's population, the demand for emergency medical services is expected to increase further in the future. Like other ambulance companies, recruiting and retention of volunteers, increasing expenses, training and equipment requirements, fundraising, and cost reimbursement are common issues. Coverage/service area disputes, level of service (BLS vs. ALS) protocol, and dispatching procedures have also been specifically identified as issues in the region.⁵²

Act 37 of 2009 was enacted to ensure that high quality and coordinated emergency and urgent medical services is readily available to residents and visitors. It requires a state-wide and regional emergency medical services plans to promote effective and efficient operation of EMS systems. It authorizes the Pennsylvania Department of Health to coordinate a program for planning, developing, maintaining, expanding, improving and upgrading EMS systems in the state. In addition to EMS plans, the act includes provisions for training and accreditation, licensing and inspections, standards and procedures, and disciplinary actions for EMS personnel and facilities. Draft regulations to implement Act 37 have been developed, but have not yet been adopted.

Fire Protection

Volunteer fire companies in the region include the East Penn Township Volunteer Fire Company, Franklin Township Volunteer Fire Department, Lehighon Fire Department, and Mahoning Valley Volunteer Fire Department.

Guidelines to determine the level of fire protection within a community are available through the Insurance Services Office (ISO). ISO has developed ratings for fire protection services that are used by some insurance companies to help establish fire insurance premium rates. The fire suppression rating is based on an analysis of data on the fire protection efforts in the community. The protection classification ranges from 1 to 10, with Class I representing exemplary fire protection and Class 10 indicating the area's fire protection doesn't meet ISO's minimum criteria (i.e. – unprotected).



The rating schedule considers three (3) main areas of a community's fire protection program:

⁵¹ http://www.franklintwpfireco.com/Your_Fire_Company.html, August 9, 2010.

⁵² Personal interviews with members of Lehigh Ambulance and Mahoning Valley Ambulance Association, September 2010.

- Fire alarms – based on how well the fire department receives and dispatches fire alarms.
- Fire department – distribution of fire companies throughout the area, equipment inventory and testing, and fire company record-keeping.
- Water supply – adequacy of the community’s water supply for fire suppression beyond daily maximum consumption, water system inventory and assessment, fire flow tests, condition and maintenance of fire hydrants, and number of fire hydrants within 1,000 feet of representative locations.

ISO ratings in the region are summarized in Table D.5-10. Only a portion of East Penn Township is rated with an “unprotected” Class 10 due to its distance from the fire company (i.e. – over 5 miles). Lehighton Borough, Weissport Borough, and portions of Mahoning Township within close proximity to Lehighton Borough are rated at Class 5. It should be noted that these ratings are based on the fire company assigned as the first call or primary responder to an area and not on which fire company may be the closest to a site. If mutual aid agreements are taken into account, which all fire companies in the region have with adjacent companies, fire protection ratings for some areas would be lower.

Table D.5-10: Fire Insurance Protection Ratings

Municipality	ISO Ratings	Notes
East Penn Township	Class 9 and Class 10	Portion of the Township with Class 10 rating due to distance from fire company (over 5 miles)
Franklin Township	Class 6 and Class 9	
Lehighton Borough	Class 5	
Mahoning Township	Class 5 and Class 9	Portion of the Township with Class 9 rating closer to a mutual aid fire company
Weissport Borough	Class 5	
<i>Source: Miller's Insurance Co. and Kim DePue, Nationwide Insurance Co.; August 2010.</i>		

Volunteer fire companies are faced with serious challenges from increased training requirements, expensive equipment, reduced funding, and decreases in volunteerism. If there is substantial growth in the region in the future and therefore an increase in the number of calls for fire service, this will add to the existing demands placed on the volunteer companies. Placing an additional burden on the volunteers is the fact that most of the funding for fire companies comes from fundraising, with municipal contributions making up a relatively small percentage of company budgets. In the future, continued cooperation between the fire companies will be necessary to monitor and reassess the needs within the region, including the option of paid staff.

Hospital and Medical Services

The 111-bed Gnaden Huetten Memorial Hospital, along with the 91-bed The Summit at Blue Mountain skilled-nursing and rehabilitation center, are located in Lehighton Borough. Both are operated by the Blue



Mountain Health System, the second largest employer in the County.⁵³

Health Professional Shortage Areas (HPSA) are defined by the Federal Health Resources and Services Administration (HRSA) as service areas that demonstrate a critical shortage of primary care physicians, dentists, or mental health providers. Twenty-one municipalities in Carbon County, including all five municipalities in the region, have been identified as a Dental Health Professional Shortage Area.

Medically Underserved Areas (MUA) or Populations (MUP) are areas or populations with a shortage of health care services. Documentation of shortage includes several factors such as infant mortality rate, poverty rate, and percentage of population aged 65 or over, in addition to the availability of health care providers. No area or population in the region is identified as a MUA or MUP.

Libraries

The Lehigh Area Memorial Library, an independent state-aided library, is located in Lehigh Borough and serves a population of 17,131.⁵⁴ It provides service to and receives funding from all five municipalities in the region, in addition to Parryville Borough.⁵⁵ It has a total of 19,710 cataloged items, or 1.15 items per capita, and a total circulation of 19,866.⁵⁶



The Pennsylvania Library Code, Title 22 of the Pennsylvania Code, contains basic standards for libraries. For independent local libraries serving less than a 25,000 population that are not part of a county or district library system, such as the Lehigh Area Memorial Library, the minimum number of hours open for services is 35 hours per week.⁵⁷ The Lehigh Area Memorial Library is open 40 hours per week, exceeding the minimum standard.⁵⁸ The standards also state the library shall provide a “minimum collection of 1½ currently useful catalogued and classified item per capita; provided that no library shall have a collection of fewer than 15,000 such items”.⁵⁹ With 19,710 catalogued items, the library exceeds this minimum standard, but contains less than 1.5 items per capita. The library is also required to have a minimum of 50 periodicals⁶⁰, but is recorded as having only 29 titles⁶¹.

Schools

All five (5) municipalities in the region and Parryville Borough are in the Lehigh Area School District. Shull-David Elementary School, Lehigh Area Middle School, and Lehigh Area

⁵³ <http://www.ghmh.org/content/History.htm>, August 9, 2010.

⁵⁴ *2008 Pennsylvania Library Statistics*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

⁵⁵ <http://library.cpals.com>.

⁵⁶ *2008 Pennsylvania Library Statistics*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

⁵⁷ *Pennsylvania Library Laws*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

⁵⁸ *2008 Pennsylvania Library Statistics*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

⁵⁹ *Pennsylvania Library Laws*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

⁶⁰ *Ibid.*

⁶¹ *2008 Pennsylvania Library Statistics*, Pennsylvania Department of Education, Office of Commonwealth Libraries.

High School are located in Lehigh Township; while other elementary schools are situated in East Penn, Franklin, and Mahoning Townships.

In addition to the district schools, the school district provides services to Behavioral Health Associates, Educare Educational Services, Lighthouse Baptist Church School, and Sts. Peter & Paul School.⁶² The district receives services from the Carbon Career & Technical Institute and the Pocono Counties Workforce Investment Area (WIA).

Enrollment history and projections for the Lehigh Area High School are included in Table D.5-11. Enrollment over the last five years has fluctuated, ranging from a low of 2,406 during the 2006-07 school year to a high of 2,568 in the 2007-08 school year. From the 2009-10 school year enrollment of 2,456, the enrollment is projected to increase by 500 students to 2,956 by the 2018-19 school year. This increase is expected to occur primarily in the elementary schools (35.9%) and the middle school (20.5%), with enrollment at the high school increasing by only 13 students or 1.7% by the 2018-19 school year.

Table D.5-11: Lehigh School District Enrollments and Projections

School Year	Grades K-4 (Elementary Schools)	Grades 5-8 (Middle School)	Grades 9-12 (High School)	Total
ENROLLMENTS				
2005-06	858	752	834	2,444
2006-07	865	710	831	2,406
2007-08	914	772	882	2,568
2008-09	922	738	823	2,483
2009-10	937	736	783	2,456
PROJECTIONS				
2010-11	923	732	810	2,465
2011-12	959	731	820	2,510
2012-13	1,020	727	786	2,533
2013-14	1,069	748	781	2,598
2014-15	1,120	749	779	2,648
2015-16	1,187	755	779	2,721
2016-17	1,228	793	775	2,796
2017-18	1,251	837	797	2,885
2018-19	1,273	887	796	2,956
2009-10 to 2018-19				
Change	336	151	13	500
Percent	35.9%	20.5%	1.7%	20.4%

Source: Pennsylvania Department of Education, August 2010.

Based on the capacity of the schools within the district, no overcrowding is projected to occur except in the elementary schools starting with the 2015-16 school year (Table D.5-12). This projected overcrowding should be able to be accommodated through slightly larger class sizes, since it equates to only an average of 6 students per grade level for each of the 4 elementary schools. Unless this increased enrollment is concentrated in one or two schools, no portable classrooms, building expansion, or redistricting should be necessary.

⁶² <http://www.edna.ed.state.pa.us/EntityRelations.asp>, May 19, 2010.

In addition to student enrollment in the various schools within the district, there were 12 home-schooled students reported during the 2006-07 school year, the latest year that data is available.⁶³ Home schooling in the area is not significant and therefore has little effect on the school district strategic or facility planning.

Table D.5-12: Enrollment Projections Compared to School Capacities

School Year	Grades K-4 (Elementary Schools)			Grades 5-8 (Middle School)			Grades 9-12 (High School)		
	# of Students	Capacity	% Capacity	# of Students	Capacity	% Capacity	# of Students	Capacity	% Capacity
2009-10	937	1,150	81.5%	736	917	80.3%	783	913	85.8%
2010-11	923	1,150	80.3%	732	917	79.8%	810	913	88.7%
2011-12	959	1,150	83.4%	731	917	79.7%	820	913	89.8%
2012-13	1,020	1,150	88.7%	727	917	79.3%	786	913	86.1%
2013-14	1,069	1,150	93.0%	748	917	81.6%	781	913	85.5%
2014-15	1,120	1,150	97.4%	749	917	81.7%	779	913	85.3%
2015-16	1,187	1,150	103.2%	755	917	82.3%	779	913	85.3%
2016-17	1,228	1,150	106.8%	793	917	86.5%	775	913	84.9%
2017-18	1,251	1,150	108.8%	837	917	91.3%	797	913	87.3%
2018-19	1,273	1,150	110.7%	887	917	96.7%	796	913	87.2%

Source: Pennsylvania Department of Education and Lehigh Area School District, August 2010.

The Lehigh Area School District Strategic Plan 2008-2014 lists the following needs within the district:

- Improved academic proficiency as demonstrated in the PSSA scores in reading and math
- More access to technology and integration into the curriculum
- Increase staff morale
- More career opportunities for career based learning such as job shadowing to make life experiences more relative
- Increase budget for technology needs
- Increase achievement of the special needs students

No full service four-year college or university is currently located in Carbon County. A branch campus of the Lehigh Carbon Community College (LCCC) is located in Nesquehoning Borough. The main campus is located in Schnecksville, with other campuses in Allentown and Tamaqua. In addition to Associate’s Degrees in applied science and arts & science, LCCC does offer various Bachelor’s Degrees from Albright College, Bloomsburg University, Kutztown University, and Temple University at some of their locations. The Wall Street West Academy and the Innovation Institute for Professional Development and Curriculum Planning Project are sponsored by the Lehigh Carbon Community College.

Four-year higher education facilities in adjacent counties include Cedar Crest College (Lehigh County), DeSales University (Lehigh County), Muhlenberg College (Lehigh County), Lafayette College (Northampton County), Lehigh University (Northampton County), Moravian College/Theological Seminary (Northampton County), Penn State University – Lehigh Valley (Lehigh County), and Penn State University – Schuylkill (Schuylkill County).

⁶³ *Home Education in Pennsylvania 2006-07*, Pennsylvania Department of Education, 2008.

An environmental education center is being planned at Riverview Park in coordination with East Penn Township, Lehigh Area School District, Wildlife Information Center (Lehigh Gap Nature Refuge), and colleges and universities in Lehigh County.

Private educational facilities in the region are included in Table D.5-13.

Table D.5-13: Private Educational Facilities

Facility Name	Type of Facility/Service	Municipality
Behavioral Health Associates - BHA Academy	licensed, private academic school	Lehighon Borough
Behavioral Health Associates - Packer Ridge Academy	licensed, private academic school	Mahoning Township
Behavioral Health Associates/Educare - Weissport Academy	licensed, private academic school	Weissport Borough
Bethesda Day Treatment Center	miscellaneous	Lehighon Borough
Carbon County Action Committee for Human Services	private, non-licensed entity	Lehighon Borough
Carbon County Head Start	private, non-licensed entity	Lehighon Borough
Connections Learning Academy	cyber school	Mahoning Township
Lighthouse Baptist Church School	nonpublic, non-licensed school	Lehighon Borough
Sts. Peter and Paul School	nonpublic, non-licensed school	Lehighon Borough
Zion United Church of Christ School	miscellaneous	Lehighon Borough

Source: Pennsylvania Department of Education, Lehighon Borough, August 2010.

Utilities

The inter-county or inter-state transmission utility lines that traverse the region are shown in Map D.5-1. These include PPL high voltage electric transmission lines, pipelines, fiber optic cable, and telephone lines that are part of a large distribution system, not necessarily providing local service. Since these rights-of-way are already cleared, they sometimes provide excellent opportunities to also locate trails within the utility easement. If the affected property owner agrees to the additional trail use, most utility companies are willing to agree to a shared easement. A proposed greenway and trail network is discussed further in *Principle 4: Conserve the Region’s Natural and Cultural Resources*.

As discussed previously, local electric service is provided by Pennsylvania Power and Light Co. (PPL) except in Lehighon Borough, where electric service is supplied by a municipal owned electric company. Gas service in the region is also available through PPL.

One of five (5) primary objectives of the 2005 state-sponsored Regional Conference on Transportation and Land Use for Economic Development – Northeast Region, was to “improve technology infrastructure (e.g., fiber optics, Wi-Fi, and high speed Internet) to bring economic development into existing communities”. Internet service in the region is provided by Blue Ridge Communications and Verizon, while data service is provided by PenTeleData. They offer high-speed broadband access to all areas of the region, with numerous wireless Wi-Fi access locations (“hot-spots”) available.

Parks and Recreation

The provision of community recreational facilities is recognized as an important function of local government since most people spend a significant portion of their recreation time close to where they live or work. As part of this regional comprehensive plan, a detailed Park, Recreation, Greenway, and Open Space (PRGOS) Plan was prepared for the region, a summary of which follows.















Park and Recreation Facility Inventory

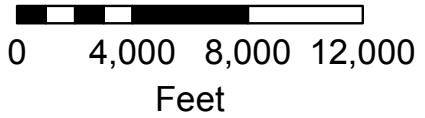
The region contains numerous public parks and recreational facilities that provide a variety of active and passive recreational uses for area residents and visitors (Map D.5-3). These include local parks, school district facilities, the Appalachian National Scenic Trail, Beltzville State Park, the D&L Trail/Lehigh Canal Park, the Lehigh River, State Game Lands, and PennDOT's Bicycle L Route (Table D.5-14). Public land devoted to parks, recreation, and open space constitutes 3,589 acres or 8.9% of the region's total land area. In addition, there are 37.5 miles of existing and proposed trails.

East Penn Township contains the most acreage of public parks and recreation land (2,418.5 acres), primarily due to the Lehigh Gap Wildlife Refuge, National Park Service/Appalachian Trail, State Game Lands No. 217. There are 1,070.4 acres in Franklin Township, 952 acres of which are associated with Beltzville State Park.

Map D.5-3: Public Park & Recreation Facilities

Legend

-  Public Recreation
-  Appalachian Trail
-  D&L Trail
-  Existing
-  Proposed
-  Lehigh River Water Trail
-  Other Trail
-  Bicycle PA Route L
-  Municipal Boundary
-  Central Carbon County Region/Municipal Boundary
-  County Boundary
-  Surface Water
-  Road
-  Lehigh Tunnel



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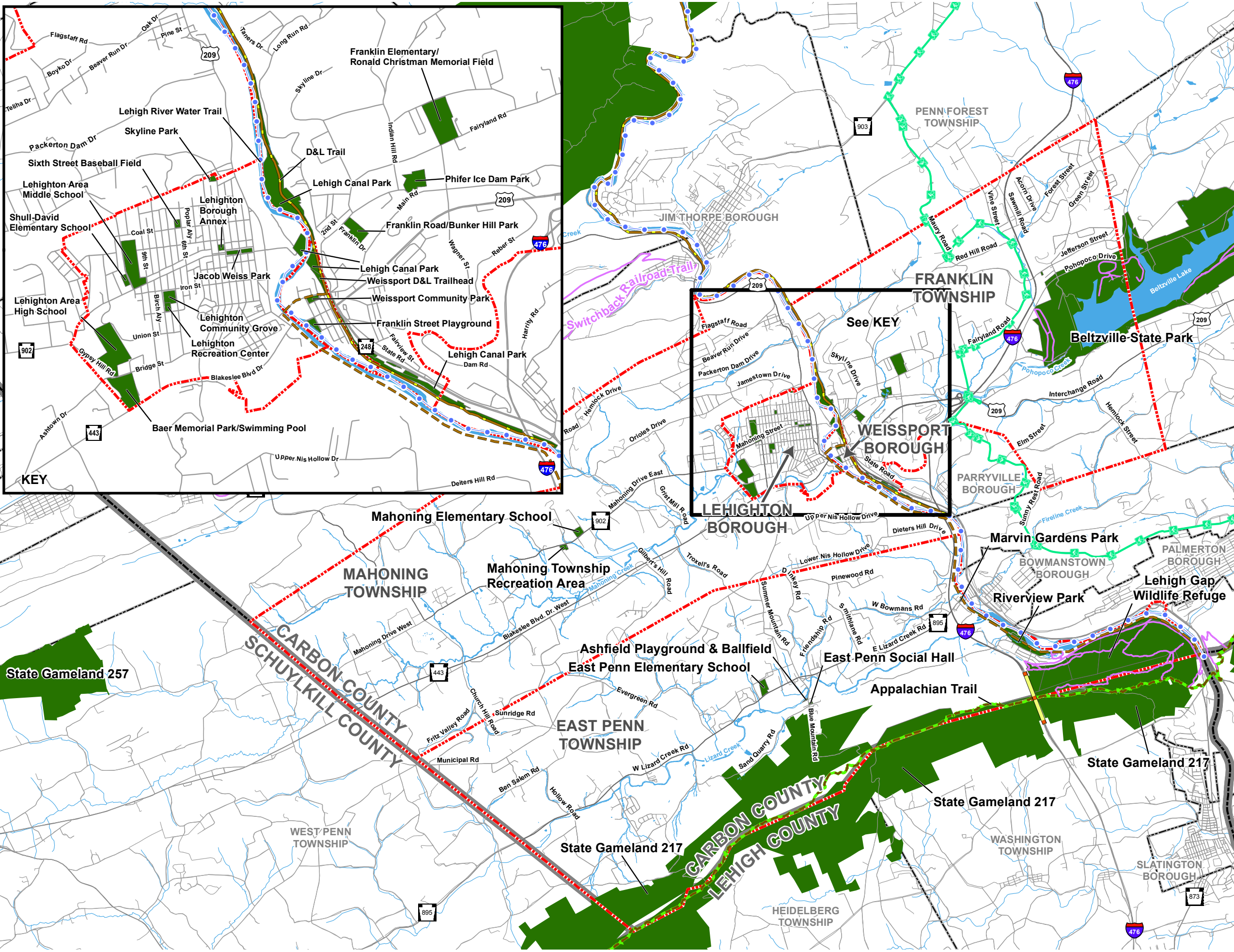


Table D.5-14: Public Parks and Recreation Facilities

Municipality	Public Park Area/Recreation Facility/School Property	Acres/ Miles	Location	Ownership
East Penn Township	Appalachian Trail	287.3	Blue Mountain Ridge	National Park Service
		6.6 miles	East Penn Township	an additional 3.9 miles in Lehigh County
	Ashfield Playground and Ballfield	0.6	Blue Mountain Road	East Penn Township
	D&L Trail - Proposed	4.5 miles	Lehigh River	Central Carbon County Municipal Authority (PA Route 895 north to Mahoning Township line), East Penn Township (PA Route 895 south to Lehigh County line)
	East Penn Elementary School	12.3	W. Lizard Creek Road	Lehigh Area School District
	East Penn Social Hall	1.0	Blue Mountain Road	East Penn Township
	Lehigh Gap Wildlife Refuge (Wildlife Information Center)	654.0	Riverview Road	wildlife refuge with 8 miles of trails in East Penn Township, Lehigh Gap Nature Center headquarters located in Washington Township, Lehigh County
	Lehigh River Water Trail	2.1 miles	Lehigh River	State of Pennsylvania
	Marvin Gardens Park	0.6	S. Kittatinny Road	East Penn Township
	Riverview Park	45.7	Riverview Drive	East Penn Township
State Game Lands No. 217	1,417.0	Blue Mountain	State of Pennsylvania	
Franklin Township	Beltzville State Park	952.0	Pohopoco Drive	State of Pennsylvania
		3.2 miles		an additional 11.6 miles of trail in Towamensing Township
	D&L Trail	2.2 miles	Lehigh Canal	Lehigh Canal & Recreation Commission
	Franklin Elementary School	25.0	Fairyland Road	Lehigh Area School District
	Franklin Road/Bunker Hill	7.9	Franklin Road	Franklin Township
	Lehigh Canal Park	66.0	Lehigh Canal	Lehigh Canal & Recreation Commission
	Lehigh River Water Trail	1.1 miles	Lehigh River	State of Pennsylvania
	PennDOT Bicycle Route "L"	5.5 miles	Cherry Hill Rd, Interchange Rd, Hairy Rd, Fairyland Rd, Long Hill Rd, Maury Rd	State of Pennsylvania
	Phifer Ice Dam Park	9.4	Main Road	Franklin Township
Ronald Christman Memorial Field	10.1	Walnut Street	Lehigh Area School District	
Lehighon Borough	Baer Memorial Park/Swimming Pool	16.0	Bridge Street	Lehighon Borough
	D&L Trail - Proposed	0.4 miles	Bridge Street & Lehigh Drive to Mahoning Creek/Mahoning Township line	Lehighon Borough
	Jacob Weiss Park	2.2	Between 1st & 3rd, North & South Streets	Lehighon Borough
	Lehigh Canal Park	2.7	Lehigh Canal	Lehigh Canal & Recreation Commission
	Lehigh River Water Trail	0.5 miles	Lehigh River	State of Pennsylvania
	Lehighon Recreation Center	1.2	Between S 7th & 8th Streets	Lehighon Borough
	Lehighon Area High School	26.3	Indian Lane	Lehighon Area School District
	Lehighon Area Middle School	16.0	Beaver Run Road	Lehighon Area School District
	Lehighon Borough Annex	0.8	N. 3rd Street	Lehighon Borough
	Lehighon Community Grove	3.7	Between S. 7th & 8th Streets	Lehighon Borough
	Shull-David Elementary School	1.5	Beaver Run Road	Lehighon Area School District
	Sixth Street Baseball Field	1.1	Coal & 6th Streets	Lehighon Borough
	Skyline Park	1.2	3rd Street	Lehighon Borough
Mahoning Township	D&L Trail - Proposed	1.9 miles	Lehigh River	Lehighon Borough (Lehigh Drive/Lehighon Borough line to sewer treatment plant), Central Carbon County Municipal Authority (sewer treatment plant to East Penn Township line)
	Lehigh River Water Trail	2.3 miles	Lehigh River	State of Pennsylvania
	Mahoning Elementary School	7.9	Mahoning Drive East	Lehighon Area School District
	Mahoning Township Recreation Area (under construction)	3.9	Mahoning Drive East - adjacent to Township Building	Mahoning Township
Weissport Borough	D&L Trail - Existing	0.9 miles	Lehigh Canal	Lehigh Canal & Recreation Commission
	D&L Trail - Proposed	0.3 miles	Bridge Street	Lehigh Canal & Recreation Commission
	Lehigh Canal Park/D&L Trailhead	2.3	Bridge Street	Weissport Borough
	Lehigh Canal Park	9.7	Bridge Street	Lehigh Canal & Recreation Commission
	Lehigh River Water Trail	1.2 miles	Lehigh River	State of Pennsylvania
	Weissport Community Park	1.5	Bridge, Franklin, Park, & White Streets	Weissport Borough
Franklin Street Playground	2.0	Franklin Street	Weissport Borough	

Private recreation includes 23 facilities, comprising 865 acres (Table D.5-15). The largest of these facilities is the Mahoning Valley Country Club in Mahoning Township.

Table D.5-15: Private Recreational Facilities

Municipality	Private Park Area/Recreation Facility	Acres	Location	Description/Facilities
East Penn Township	Beechwood Lodge	34.7	Beechwood Lane	nudist campground - swimming pool, tennis and volleyball courts, horseshoes, exercise
	Blue Ridge Campground	36.8	Lizard Creek Road	family campground - camp sites, bathhouse, swimming pool, cabins, playground, fishing stream, recreation/game rooms
	East Penn Sporting Club	19.7	Club Lane	ball fields and club building
	Mountain Springs Stables	10.0	Mahoning Mountain Road	stables and horseback riding lessons
	Stoney Brook Estates Campground	19.3	Germans Road	family campground - camp sites, swimming pool, indoor clubhouse, bathhouse
Franklin Township	American Style Karate of PA	7.4	Evergreen Road	karate instruction
	Grange Hall	2.5	Grange Road	meeting room, banquet facility
	Jimmy's Gym	n.a.	Interchange Road	fitness center
	Kriss Pines Lake	103.3	Forest Street	pay to fish lake
	LaRose's Skating Rink	2.7	Interchange Road	roller skating rink
	Mountain Warriors Karate Institute	1.1	Interchange Road	karate instruction
Lehighton Borough	Cypress Lanes	0.3	N. 4th Street	bowling alley (6 lanes)
	Fritz's Lanes & Pro Shop	0.05	2nd & South Streets	bowling alley (10 Lanes)
	Mountain Karate Academy	0.8	Lehighton Borough Annex	karate instruction
Mahoning Township	Beaver Run Rod & Gun Club	3.2	Stewart Creek Road	hunting & fishing club - rifle, pistol, shot gun and archery ranges, pavilion, club building
	Concern	84.9	Country Club Road	basketball courts, McCall's softball field
	Mahoning Valley Country Club	243.9	Country Club Road	18-hole golf course, restaurant
	Mahoning Valley Speedway	60.0	Blakeslee Boulevard Drive East	1/4 mile oval stock car race track
	Maple Tree Inn Tennis Club	4.8	Mahoning Drive East	outdoor tennis courts (4)
	Normal Square/Chapel Field	6.4	Fritz Valley Road	soccer field
	Orioles Club & Community Center	88.3	Orioles Drive	soccer field
	Tumble with Denise	5.3	Oak Grove Drive	gymnastics instruction
	Ukrainian Homestead	129.6	Beaver Run Road	large and small indoor banquet halls, motel rooms, dormitory rooms, outdoor swimming pool, bathhouse, outdoor grounds

Land Use Regulations for Parks and Recreation

The Pennsylvania Municipalities Planning Code (MPC) provides local governments with a financial tool to assist with the capital expense of creating park areas and recreation facilities to serve the future residents of new housing developments. Subdividers and land developers can be required to provide an amount of land for recreation or pay fees in lieu of land dedication under specific conditions.

East Penn Township, Franklin Township and Mahoning Township have each enacted a mandatory dedication/fee-in-lieu ordinance establishing the amount of land to be set aside or an equivalent fee-in-lieu for each new dwelling unit constructed (Table D.5-16). The amount of land area to be dedicated for park, recreation, or open space purposes ranges from 5% to 20%, depending on the density of the proposed development. The land must meet certain minimum requirements (e.g. – accessibility, maximum percent in steep slopes or high water table soils, etc.).

In place of dedicating land, East Penn Township collects \$550 per lot, Franklin Township \$500 per lot, and Mahoning Township \$200 per lot. The townships deposit all money received as a result of the fee-in-lieu of provisions of the ordinance into a special parks and recreation fund.

Table D.5-16: Mandatory Dedication/ Fee-in-Lieu Ordinance Provisions

Municipality	Percent of Total Land Area to be Reserved per Gross Density of Tract (Dwelling Units per Acre)				Fee-in-Lieu of Dedication per Dwelling Unit
	Up to 1.0	1.1 to 2.0	2.01 to 3.0	3.01 and greater	
East Penn Township	5%	10%	15%	20%	\$550
Franklin Township	5%	10%	15%	20%	\$500
Lehigh Township	n.a.	n.a.	n.a.	n.a.	n.a.
Mahoning Township	5%	10%	15%	20%	\$200
Weissport Borough	n.a.	n.a.	n.a.	n.a.	n.a.

Lehigh and Weissport Boroughs have not enacted this financial tool since few subdivisions and new residential developments occur in these municipalities.

Act 24 of 2008 requires the fifty-eight Pennsylvania municipalities along the Appalachian National Scenic Trail to take action to preserve the natural, scenic, historic, and aesthetic values of the trail and to conserve and maintain it as a public natural resource. Such action may include the adoption, implementation, and enforcement of zoning ordinances as the governing body deems necessary to preserve those values. Sample zoning provisions regarding setbacks; screening and buffers; high impact uses such as wind turbines, cell towers, and ski areas; conservation standards; and overlay districts are included in *A Conservation Guidebook for Communities Along the Appalachian National Scenic Trail*.

Appendix E – Economic Development Financial and Technical Assistance

As indicated in *Principle 1 – Ensure the Economic Vitality of the Region*, there are a wide variety of financing and technical assistance available to help business owners start a new business or expand an existing business in Carbon County. Here is a list of programs from the Commonwealth of Pennsylvania’s website, www.newpa.com:

Ben Franklin Partners

Funding for research and development, technology transfer, joint research and development

Ben Franklin Technology Development Authority (BFTDA) – Technology Company Investment Program

Direct investment to or on behalf of technology-oriented Pennsylvania businesses, or venture capital funds investing in PA technology companies.

Ben Franklin Technology Development Authority (BFTDA) -Technology Development Grant

Grants to help groups or consortia of Pennsylvania companies position themselves at the cutting edge of emerging technologies and establish a competitive advantage through the use of advanced e-business systems.

Ben Franklin Technology Development Authority (BFTDA) – University Research Funding

Grants designed to promote stronger synergy between university-based research and development and the transfer of technology as it relates to economic and work force development

Building PA

Provides mezzanine capital for developers for real estate assets in small to mid-sized Pennsylvania communities.

Business in Our Sites Grants and Loans

Empowers communities to attract growing and expanding businesses by helping them build an inventory of ready sites.

Citizens Job Bank

A public/private \$100 million loan partnership between Citizens Bank and the Commonwealth.

Community Economic Development Loan Program

Low-interest loans for projects in distressed communities, stimulating self-help initiatives and helping people build assets at the individual, family and community levels

Core Industries (expanded Machinery and Equipment Loan Program)

The Core Industries stimulus program will enhance MELF by adding an additional \$75 million in revolving loan funds and by increasing the maximum loan amount from half a million to five million dollars. Information technology companies, biotechnology companies and licensed hospitals are now also eligible to receive MELF funding. Twenty-five million dollars will be targeted to aid hospitals with the purchase and installation of FDA required pharmaceutical management technology.

Customized Job Training Program (CJT)

Grants for specialized job training to existing or newly hired employees.

Educational Improvement Tax Credit Program (EITC)

Tax credits to eligible businesses contributing to a scholarship organization, an education improvement organization, or a pre-kindergarten scholarship organization

Enterprise Zone Program

Grants to financially disadvantaged communities for preparing and implementing business development strategies within municipal Enterprise Zones.

Festival Grant Program

The Pennsylvania Festival Marketing Initiative is an initiative of the Pennsylvania Tourism Office in association with the Pennsylvania Council on the Arts (PCA). The goal of this initiative is to identify a roster of local and regional festivals and special events which can help Destination Marketing Organizations (DMO) to increase inbound traffic and overnight hotel stays in Pennsylvania's seven tourism regions.

First Industries Fund

The First Industries Fund is a grant and loan program aimed at strengthening Pennsylvania's agriculture and tourism industries. The First Industries Fund is part of PA Grows, the Pennsylvania Department of Agriculture's new initiative designed to assist agricultural producers in gaining access to the capital they need to begin, continue, or expand their businesses. Visit PA Grows for more information.

Guaranteed Free Training Program (GFT-WEDnetPA)

Basic skills and information technology training for new employees and new and expanding businesses.

Industrial Sites Reuse Program

Grant and low-interest loan financing to perform environmental site assessment and remediation work at former industrial sites.

Infrastructure and Facilities Improvement Program

A multi-year grant program that will provide grants to certain issuers of debt in order to assist with the payment of debt service.

Infrastructure Development Program

Grant and low-interest loan financing for public and private infrastructure improvements

Job Creation Tax Credits

A \$1,000-per-job tax credit to create new jobs in the Commonwealth within three years

Keystone Innovation Zone (KIZ)

Provide grant funds to community/university partnerships to generate job growth through tech transfer and entrepreneurship. Focused around campuses and property around college and universities.

Keystone Opportunity Zones (KOZ)

Provides state and local tax abatement to businesses and residents locating in one of the 12 designated zones.

Machinery and Equipment Loan Fund (MELF)

Low-interest loans to acquire and install new or used machinery and equipment or to upgrade existing machinery and equipment

Neighborhood Assistance, Enterprise Zone Tax Credit (NAP-EZP)

An incentive program that provides tax credits to businesses investing in or making physical improvements to properties located within designated enterprise zones.

New PA Venture Capital Investment Program

Loans to venture capital fund managers to invest in young PA research and development companies.

New Pennsylvania Venture Guarantee Program

Loan guarantees to venture capitalist companies for investments in entrepreneurs and young companies.

Opportunity Grant Program

Grant funds to create or preserve jobs within the Commonwealth.

Pennsylvania Base Development Committee

This initiative is designed to assist local defense organizations in protecting and promoting the 71,133 active, reserve, National Guard and Department of Defense positions within the Commonwealth that are at risk because of the BRAC 2005 process that is currently underway.

Pennsylvania Capital Access Program (PennCAP)

Loan guarantee through participating banks to be used to support a wide variety of business purposes.

Pennsylvania Community Development Bank Loan Program (PCD Bank)

Debt financing for Community Development Financial Institutions (CDFIs).

Pennsylvania Economic Development Financing Authority (PEDFA) Tax Exempt Bond Program

Tax-exempt and taxable bonds, both in pooled transactions and stand-alone transactions, to be used to finance land, building, equipment, working capital and refinancings.

Pennsylvania Economic Development Financing Authority (PEDFA) Taxable Bond Program

Tax-exempt and taxable bonds, both in pooled transactions and stand-alone transactions, to be used to finance land, building, equipment, working capital and refinancings.

Pennsylvania Industrial Development Authority (PIDA)

Low-interest loan financing through Industrial Development Corporations for land and building acquisition, construction and renovation, resulting in the creation or retention of jobs.

Pennsylvania Infrastructure Investment Authority (PennVEST)

Low-interest loans for design, engineering and construction of publicly and privately owned drinking water distribution and treatment facilities, storm water conveyance and wastewater treatment and collection systems.

Pennsylvania Minority Business Development Authority

Low-interest loan financing to businesses owned and operated by ethnic minorities.

Pennsylvania Pollution Prevention Assistance Program (PPAA)

Assistance for small businesses to implement pollution prevention and energy-efficiency projects, enabling these businesses to adopt or install equipment or processes that reduce pollution, energy use or raw materials.

Rail Freight Assistance (RFA)

Grants to build or repair rail lines or spurs.

Redevelopment Assistance Capital Program (RACP)

The Redevelopment Assistance Capital Program is a state grant program administered by the Office of the Budget for the acquisition and construction of regional economic, cultural, civic, and historical improvement projects.

Regional Marketing Partnership Grant Program

The purpose of the Regional Marketing Partnership Grant Program provides funding for sound marketing efforts and partnership development to promote Pennsylvania. Two types of grants are available: place-based and experience-based.

Research and Development Tax Credit

Allows companies holding qualifying Research and Development Tax Credits to apply for approval to sell those tax credits and assign them to the buyer(s).

Second Stage Loan Program

Loan Guarantees for working capital for 2-8 yr old manufacturing, biotech, and technology-oriented companies

Small Business Development Centers (SBDCs)

Technical assistance and consulting services to current and prospective entrepreneurs.

Small Business First

Funding for small businesses, including: low-interest loan financing for land and building acquisition and construction; machinery and equipment purchases and working capital.

Tax Increment Financing (TIF) Guarantee Program

Promotes and stimulates the general economic welfare of various regions and communities in the Commonwealth and assists in the development, redevelopment and revitalization of Brownfield and Greenfield sites in accordance with the TIF Act. The program provides credit enhancement for TIF projects to improve market access and lower capital costs through the use of guarantees to issuers of bonds or other indebtedness.

Water Supply and Wastewater Infrastructure Program (PennWorks)

A program to ensure safe water supply and proper wastewater infrastructure.

Work Force Investment Act of 1998 (Title 1)

A federal program providing employment assistance and job training to eligible individuals

Workforce Leadership Grants

Improve the supply of, and create a pipeline for, technology based industries in Pennsylvania that will require highly skilled technical workers to compete in a globally competitive technology

based economy.

Last Updated (Monday, 30 August 2010 07:33)

Appendix F – Adoption Resolutions

Resolution No. 2011-12
EAST PENN TOWNSHIP
Carbon County, Pennsylvania

**A RESOLUTION ADOPTING THE MULTI-MUNICIPAL
COMPREHENSIVE PLAN FOR THE CENTRAL CARBON
COUNTY REGION, TITLED "CENTRAL CARBON COUNTY
REGIONAL COMPREHENSIVE PLAN" AND COMPRISED
OF THE BOROUGHES OF LEHIGHTON AND WEISSPORT
AND THE TOWNSHIPS OF EAST PENN, FRANKLIN, AND
MAHONING.**

WHEREAS, The Township of East Penn entered into an Intergovernmental Cooperation Planning Agreement to work cooperatively on a multi-municipal comprehensive plan for the five (5) Central Carbon County municipalities set forth above; and

WHEREAS, The Township of East Penn was represented on the Central Carbon County Regional Comprehensive Planning Committee and participated in the preparation of the multi-municipal comprehensive plan; and

WHEREAS, the multi-municipal comprehensive plan is titled *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, a public meeting of the Township of East Penn Planning Commission was held on September 29, 2011 pursuant to public notice and Section 302(a) of the Pennsylvania Municipalities Planning Code and the Township of East Penn Planning Commission recommended the adoption of the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, pursuant to Section 301.3 of the Pennsylvania Municipalities Planning Code, copies of the *Central Carbon County Regional Comprehensive Plan* have been provided to the Carbon County Office of Planning and Development, the Lehigh Area School District, and all contiguous municipalities and the required forty-five (45) day comment period has been provided; and

WHEREAS, a public hearing of the Board of Supervisors of East Penn Township, pursuant to public notice and Section 302(b) of the Pennsylvania Municipalities Planning Code, was held on October 27, 2011 to discuss the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, East Penn Township intends to enter into negotiations with the municipalities that have participated in the preparation of the *Central Carbon County Regional Comprehensive Plan* to develop appropriate and mutually acceptable agreements to implement the *Central Carbon County Regional Comprehensive Plan*.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of East Penn Township, Carbon County, Pennsylvania, as follows:


Section 1. Adopts, pursuant to Section 302(c) of the Pennsylvania Municipalities Planning Code, the multi-municipal comprehensive plan titled the *Central Carbon County Regional Comprehensive Plan*, hereinafter referred to as the "Plan", as the comprehensive plan for East Penn Township in accordance with Article III of the Pennsylvania Municipalities Planning Code.

Section 2. The Plan shall include the chapters titled Executive Summary; Introduction; Public Participation Summary; Goals, Objectives and Priority Issues; Regional Issues and Focus Areas; and Action Plan; and all charts, tables, figures, diagrams, twenty-nine (29) maps, appendices, and textual matter contained therein.

DULY ADOPTED this 27 day of October, 2011, by the Board of East Penn Township, Carbon County, Pennsylvania, in lawful session duly assembled.

ATTEST:

EAST PENN TOWNSHIP


DEANNA CUNFER, SECRETARY


HERBERT TRUHE, CHAIRMAN

Resolution No. 2011-13
FRANKLIN TOWNSHIP
Carbon County, Pennsylvania

**A RESOLUTION ADOPTING THE MULTI-MUNICIPAL
COMPREHENSIVE PLAN FOR THE CENTRAL CARBON
COUNTY REGION, TITLED “CENTRAL CARBON COUNTY
REGIONAL COMPREHENSIVE PLAN” AND COMPRISED
OF THE BOROUGHES OF LEHIGHTON AND WEISSPORT
AND THE TOWNSHIPS OF EAST PENN, FRANKLIN, AND
MAHONING.**

WHEREAS, the Township of Franklin entered into an Intergovernmental Cooperation Planning Agreement to work cooperatively on a multi-municipal comprehensive plan for the five (5) Central Carbon County municipalities set forth above; and

WHEREAS, the Township of Franklin was represented on the Central Carbon County Regional Comprehensive Planning Committee and participated in the preparation of the multi-municipal comprehensive plan; and

WHEREAS, the multi-municipal comprehensive plan is titled *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, a public meeting of the Township of Franklin Planning Commission was held on September 29, 2011 pursuant to public notice and Section 302(a) of the Pennsylvania Municipalities Planning Code and the Township of Franklin Planning Commission recommended the adoption of the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, pursuant to Section 301.3 of the Pennsylvania Municipalities Planning Code, copies of the *Central Carbon County Regional Comprehensive Plan* have been provided to the Carbon County Office of Planning and Development, the Lehigh Area School District, and all contiguous municipalities and the required forty-five (45) day comment period has been provided; and

WHEREAS, a public hearing of the Board of Supervisors of Franklin Township, pursuant to public notice and Section 302(b) of the Pennsylvania Municipalities Planning Code, was held on November 22, 2011 to discuss the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, the Township of Franklin intends to enter into negotiations with the municipalities that have participated in the preparation of the *Central Carbon County Regional Comprehensive Plan* to develop appropriate and mutually acceptable agreements to implement the *Central Carbon County Regional Comprehensive Plan*.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Franklin Township, Carbon County, Pennsylvania, as follows:

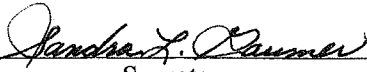
Section 1. Adopts, pursuant to Section 302(c) of the Pennsylvania Municipalities Planning Code, the multi-municipal comprehensive plan titled the *Central Carbon County Regional Comprehensive Plan*, hereinafter referred to as the “Plan”, as the comprehensive plan for the Township of Franklin in accordance with Article III of the Pennsylvania Municipalities Planning Code.

Section 2. The Plan shall include the chapters titled Executive Summary; Introduction; Public Participation Summary; Goals, Objectives and Priority Issues; Regional Issues and Focus Areas; and Action Plan; and all charts, tables, figures, diagrams, twenty-nine (29) maps, appendices, and textual matter contained therein.

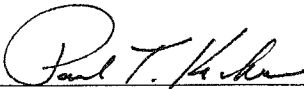
DULY ADOPTED this 22nd day of November, 2011, by the Board of Supervisors of Franklin Township, Carbon County, Pennsylvania, in lawful session duly assembled.

ATTEST:

BOARD OF SUPERVISORS OF THE
TOWNSHIP OF FRANKLIN


Secretary







Resolution No. 18
LEHIGHTON BOROUGH
Carbon County, Pennsylvania

**A RESOLUTION ADOPTING THE MULTI-MUNICIPAL
COMPREHENSIVE PLAN FOR THE CENTRAL CARBON
COUNTY REGION, TITLED "CENTRAL CARBON COUNTY
REGIONAL COMPREHENSIVE PLAN" AND COMPRISED
OF THE BOROUGHS OF LEHIGHTON AND WEISSPORT
AND THE TOWNSHIPS OF EAST PENN, FRANKLIN, AND
MAHONING.**

WHEREAS, Borough of Lehighton entered into an Intergovernmental Cooperation Planning Agreement to work cooperatively on a multi-municipal comprehensive plan for the five (5) Central Carbon County municipalities set forth above; and

WHEREAS, Borough of Lehighton was represented on the Central Carbon County Regional Comprehensive Planning Committee and participated in the preparation of the multi-municipal comprehensive plan; and

WHEREAS, the multi-municipal comprehensive plan is titled *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, a public meeting of the Borough of Lehighton Planning Commission was held on September 29, 2011 pursuant to public notice and Section 302(a) of the Pennsylvania Municipalities Planning Code and the Borough of Lehighton Planning Commission recommended the adoption of the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, pursuant to Section 301.3 of the Pennsylvania Municipalities Planning Code, copies of the *Central Carbon County Regional Comprehensive Plan* have been provided to the Carbon County Office of Planning and Development, the Lehighton Area School District, and all contiguous municipalities and the required forty-five (45) day comment period has been provided; and

WHEREAS, a public hearing of the Borough Council, pursuant to public notice and Section 302(b) of the Pennsylvania Municipalities Planning Code, was held on October 27, 2011 to discuss the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, Borough of Lehighton intends to enter into negotiations with the municipalities that have participated in the preparation of the *Central Carbon County Regional Comprehensive Plan* to develop appropriate and mutually acceptable agreements to implement the *Central Carbon County Regional Comprehensive Plan*.

NOW, THEREFORE, BE IT RESOLVED by the Borough Council of the Borough of Lehighton, Carbon County, Pennsylvania, as follows:

Section 1. Adopts, pursuant to Section 302(c) of the Pennsylvania Municipalities Planning Code, the multi-municipal comprehensive plan titled the *Central Carbon County Regional Comprehensive Plan*, hereinafter referred to as the "Plan", as the comprehensive plan for (*name of municipality*) in accordance with Article III of the Pennsylvania Municipalities Planning Code.

Section 2. The Plan shall include the chapters titled Executive Summary; Introduction; Public Participation Summary; Goals, Objectives and Priority Issues; Regional Issues and Focus Areas; and Action Plan; and all charts, tables, figures, diagrams, twenty-nine (29) maps, appendices, and textual matter contained therein.

DULY ADOPTED this 27th day of October, 2011, by the Borough Council of Borough of Lehighon, Carbon County, Pennsylvania, in lawful session duly assembled.

ATTEST:

LEHIGHTON BOROUGH

Brenda L Koons
BRENDA KOONS, SECRETARY

Grant R Hunsicker
GRANT HUNSICKER, COUNCIL PRESIDENT

2011-
Resolution No. 11
MAHONING TOWNSHIP
Carbon County, Pennsylvania

**A RESOLUTION ADOPTING THE MULTI-MUNICIPAL
COMPREHENSIVE PLAN FOR THE CENTRAL CARBON
COUNTY REGION, TITLED “CENTRAL CARBON COUNTY
REGIONAL COMPREHENSIVE PLAN” AND COMPRISED
OF THE BOROUGHES OF LEHIGHTON AND WEISSPORT
AND THE TOWNSHIPS OF EAST PENN, FRANKLIN, AND
MAHONING.**

WHEREAS, the Township of Mahoning entered into an Intergovernmental Cooperation Planning Agreement to work cooperatively on a multi-municipal comprehensive plan for the five (5) Central Carbon County municipalities set forth above; and

WHEREAS, the Township of Mahoning was represented on the Central Carbon County Regional Comprehensive Planning Committee and participated in the preparation of the multi-municipal comprehensive plan; and

WHEREAS, the multi-municipal comprehensive plan is titled *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, a public meeting of the Township of Mahoning Planning Commission was held on September 29, 2011 pursuant to public notice and Section 302(a) of the Pennsylvania Municipalities Planning Code and the Township of Mahoning Planning Commission recommended the adoption of the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, pursuant to Section 301.3 of the Pennsylvania Municipalities Planning Code, copies of the *Central Carbon County Regional Comprehensive Plan* have been provided to the Carbon County Office of Planning and Development, the Lehigh Area School District, and all contiguous municipalities and the required forty-five (45) day comment period has been provided; and

WHEREAS, a public hearing of the Board of Supervisors of Mahoning Township, pursuant to public notice and Section 302(b) of the Pennsylvania Municipalities Planning Code, was held on October 27, 2011 to discuss the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, the Township of Mahoning intends to enter into negotiations with the municipalities that have participated in the preparation of the *Central Carbon County Regional Comprehensive Plan* to develop appropriate and mutually acceptable agreements to implement the *Central Carbon County Regional Comprehensive Plan*.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the Township of Mahoning, Carbon County, Pennsylvania, as follows:

Section 1. Adopts, pursuant to Section 302(c) of the Pennsylvania Municipalities Planning Code, the multi-municipal comprehensive plan titled the *Central Carbon County Regional Comprehensive Plan*, hereinafter referred to as the “Plan”, as the comprehensive plan for the Township of Mahoning in accordance with Article III of the Pennsylvania Municipalities Planning Code.

Section 2. The Plan shall include the chapters titled Executive Summary; Introduction; Public Participation Summary; Goals, Objectives and Priority Issues; Regional Issues and Focus Areas; and Action Plan; and all charts, tables, figures, diagrams, twenty-nine (29) maps, appendices, and textual matter contained therein.

2011-
Resolution No. 11
MAHONING TOWNSHIP
Carbon County, Pennsylvania

Weissport Boroughs, Existing Traffic Volumes -- Mahoning Township, Existing Levels of Service, and 2030 Future No-Build Levels of Service.

DULY ADOPTED this 27 day of October, 2011, by the Board of Supervisors of Mahoning Township, Carbon County, Pennsylvania, in lawful session duly assembled.

ATTEST:

BOARD OF SUPERVISORS OF THE
TOWNSHIP OF MAHONING

Natalie D. Haggerty

John M. Pouch

Judi L. Senn

Paul J. R. h

[Signature]

Resolution No. 11-2011
Borough of Weissport
Carbon County, Pennsylvania

A RESOLUTION ADOPTING THE MULTI-MUNICIPAL COMPREHENSIVE PLAN FOR THE CENTRAL CARBON COUNTY REGION, TITLED “CENTRAL CARBON COUNTY REGIONAL COMPREHENSIVE PLAN” AND COMPRISED OF THE BOROUGHES OF LEHIGHTON AND WEISSPORT AND THE TOWNSHIPS OF EAST PENN, FRANKLIN, AND MAHONING.

WHEREAS, Weissport Borough entered into an Intergovernmental Cooperation Planning Agreement to work cooperatively on a multi-municipal comprehensive plan for the five (5) Central Carbon County municipalities set forth above; and

WHEREAS, Weissport Borough was represented on the Central Carbon County Regional Comprehensive Planning Committee and participated in the preparation of the multi-municipal comprehensive plan; and

WHEREAS, the multi-municipal comprehensive plan is titled *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, a public meeting of the Weissport Borough Planning Commission was held on September 29, 2011 pursuant to public notice and Section 302(a) of the Pennsylvania Municipalities Planning Code and the Weissport Borough Council recommended the adoption of the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, pursuant to Section 301.3 of the Pennsylvania Municipalities Planning Code, copies of the *Central Carbon County Regional Comprehensive Plan* have been provided to the Carbon County Office of Planning and Development, the Lehigh Area School District, and all contiguous municipalities and the required forty-five (45) day comment period has been provided; and

WHEREAS, a public hearing of the Borough Council, pursuant to public notice and Section 302(b) of the Pennsylvania Municipalities Planning Code, was held on October 27, 2011 to discuss the *Central Carbon County Regional Comprehensive Plan*; and

WHEREAS, Weissport Borough intends to enter into negotiations with the municipalities that have participated in the preparation of the *Central Carbon County Regional Comprehensive Plan* to develop appropriate and mutually acceptable agreements to implement the *Central Carbon County Regional Comprehensive Plan*.

NOW, THEREFORE, BE IT RESOLVED by the Borough Council of Weissport Borough, Carbon County, Pennsylvania, as follows:

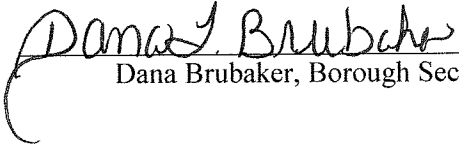
Section 1. Adopts, pursuant to Section 302(c) of the Pennsylvania Municipalities Planning Code, the multi-municipal comprehensive plan titled the *Central Carbon County Regional Comprehensive Plan*, hereinafter referred to as the “Plan”, as the comprehensive plan for Weissport Borough in accordance with Article III of the Pennsylvania Municipalities Planning Code.

Section 2. The Plan shall include the chapters titled Executive Summary; Introduction; Public Participation Summary; Goals, Objectives and Priority Issues; Regional Issues and Focus Areas; and Action Plan; and all charts, tables, figures, diagrams, twenty-nine (29) maps, appendices, and textual matter contained therein.


DULY ADOPTED this 27th day of October, 2011, by the Borough Council of Weissport Borough Carbon County, Pennsylvania, in lawful session duly assembled.

ATTEST:


Weissport Borough
Borough Council



Dana Brubaker, Borough Secretary



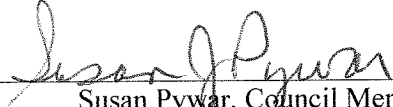
Timothy Rehrig, Council President



Gene Kershner, Vice-President



Arland Moyer, Sr., Council Member



Susan Pywar, Council Member