



*Lebanon County
Comprehensive Plan*

December 2007

LEBANON COUNTY

COMPREHENSIVE PLAN

Adopted December 13, 2007

Prepared for
The Lebanon County Board of Commissioners

By
The Lebanon County Planning Department

Consulting Services Provided by



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Introduction

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The Role and Purpose of the Comprehensive Plan

The Comprehensive Plan is a policy guide for Lebanon County over the next 10 years. It provides a general direction for community development and resource conservation policy and investment. The Comprehensive Plan provides a framework for decision making in the areas of land use, transportation, economic development, housing, public utilities and services, and natural and cultural resource conservation within its borders but also in the context of the surrounding region. The plan projects future growth trends and proposes the best possible land use, infrastructure, economic development and public service approaches to accommodate expected growth while protecting the county's varied resources.

This 2007 Comprehensive Plan updates the county's previous Interim Plan, which was adopted in 1987. It provides the most recent U.S. Census Bureau data, as well as resource, development and economic data from state and local sources. Extensive public input was used to gain an even greater understanding of the changes the county has experienced over the past 20 years and to inform the preferred direction of future development and conservation policy and investment.

What the Comprehensive Plan does

The Comprehensive Plan is a policy document, establishing the general framework for how community development should take place. For each planning element and the greater whole of these parts, the Comprehensive Plan:

- Focuses on current trends and issues in Lebanon County and addresses these concerns with solutions that are both practical and innovative.
- Provides the best possible projection of future conditions based on current patterns and strategies to create a more desirable and sustainable future.
- Directs future change through a vision of community potential.
- Establishes the framework for consistency between future land use policies and land use regulatory measures.
- Assists officials at all levels in their decision making processes.

What the Comprehensive Plan does not do

The Comprehensive Plan is not a regulatory document. Its purpose is to provide information, preferred direction of trends and conditions that can be used in developing and administering regulatory provisions that will foster and facilitate the evolution of preferred community conditions.

- It does not affect individual properties.
- It does not prescribe land development—neither public nor private.
- It does not preclude future analysis or decision making.

“If you don’t have a picture of where your community wants to go, all the decisions just kind of get made without a purpose. They don’t add up to a complete picture of the future”

**Jeff Soule, Policy Director
American Planning Association**

Relationship of the Comprehensive Plan to Other Plans

The County Comprehensive Plan gives policy guidance and direction to county regulations and codes. The plan makes recommendations to update or complete the following plans and regulations to provide residents of the county with a quality of life commensurate with available resources.

- Lebanon County Subdivision and Land Development Ordinance
- Lebanon County Solid Waste Management Plan
- Act 167 Stormwater Management Plans
- Municipal Comprehensive Plans, Zoning Ordinances, Subdivision and Land Development Ordinances, and Act 537 Sewage Facilities Plans

Lebanon County’s Comprehensive Plan aims to achieve its established goals and objectives in a manner that is generally consistent with those of local municipal comprehensive plans as required by the Pennsylvania Municipalities Planning Code (MPC). The plan acknowledges the local goals of the municipalities while making broad recommendations appropriate for the county.

Frequently Asked Questions

Does Lebanon County need a new comprehensive plan?

Yes, the county’s current comprehensive plan was developed and adopted in 1970. It was later amended by an Interim Plan in 1987. The current Interim Plan is now 20 years old. More importantly, Lebanon County has changed quite a bit over those years and needs to be guided by policy that addresses the contemporary community needs. In addition, the Pennsylvania Municipalities Planning Code requires that county comprehensive plans be reviewed and updated at least every ten years.

What happens after the plan is finished?

Once the plan is adopted, the Lebanon County Board of Commissioners will direct the implementation of the plan – in other words, put the plan into action. The Commissioners may direct county departments and offices to carry out specific plans or individual action items. It is recommended that the Commissioners request assistance from state, local and private partners in order to leverage staff and volunteer time, skill, and other resources to implement the plan as efficiently and effectively as possible.

Who is in charge of making this plan work?

While the Board of County Commissioners, Planning Department, and municipal officials will implement much of this plan, other agencies have a lead or support role for many action items. Public support for the vision and recommendations will also be important. This public includes residents, business owners, and organizations that have a direct interest in the future of Lebanon County.

The Planning Process

Lebanon County began organizing for its new comprehensive plan in 2002. The county recognized that significant change was taking place and the policy established by the 1987 Interim Plan was no longer relevant for decision making. The county's designation had been changed from rural to urban by the U.S. Census Bureau and new statistical data had been released from the Bureau.

Under the direction of the Board of Commissioners, the Lebanon County Planning Department applied to the Pennsylvania Department of Community and Economic Development for planning and technical assistance funds. PA DCED was indeed interested in funding the new comprehensive plan and brought with it the support of several other state agencies: the Department of Conservation and Natural Resources and the Department of Environmental Protection. The Department of Transportation (PennDOT) was already engaged in discussions with the newly formed Metropolitan Planning Organization for the preparation of a long range transportation plan. In coordination with the four state agencies, the Lebanon County Planning Department developed a four phase planning process to develop a new comprehensive plan and engaged the services of a team of professional planners.

The project began in January 2005. The first phase explored issues and concerns among the public and community representatives. During this phase, the project team assembled a 15-member Task Force, conducted 123 interviews, and hosted six regional meetings to identify current issues in the county and concerns for the future. This phase concluded with the development of an initial list of goals and objectives in early Fall 2005.

The second phase completed a detailed inventory of Lebanon County's physical character and resources. Ten county profiles, or background studies, documented current (2005 and 2006) conditions and recent trends in demographics, housing, the economy, parks and recreation, natural resources, historic resources, transportation, community facilities and utilities, land use and energy use and conservation. Extensive spatial or map data was also gathered and presented in the profiles to illustrate the location of various resources and facilities. Where possible, the types and amounts of growth and change were projected through the year 2020. The findings of this research were shared with the Task Force for common sense validation. This work occurred over nearly the entire project period with several profiles completed in early 2006 and others only by mid 2007. Concurrent with this technical research, more detailed investigation of municipal perspectives and public perceptions and concerns were gathered through a series of surveys in late 2005 and early 2006.

The third phase of the plan's development brought the findings of the technical research together with those of the surveys to envision a future for Lebanon County that sustains quality of life and accommodates change. This phase revisited the preliminary goals and objectives and, where appropriate, revised them to more accurately outline a future that residents would embrace and support. This phase occurred as each planning element transitioned from inventory and analysis to plan development between mid 2006 and early 2007.

The fourth and final phase developed an action plan for each planning element. Each action plan contains a set of recommendations addressing a wide range of actions to update policy, regulations, best practices, educational efforts and partnership coordination. These recommendations were reviewed with the Task Force in late 2006 and early 2007 and further developed with recommended implementation partners, time horizons, and potential funding sources. These action plans were reviewed with municipal officials and the public in a series of workshops and open houses in the spring of 2007. Following presentation of the revised action plans, the Citizen Task Force and Planning Department identified priority recommendations as the actions that the Lebanon County Commissioners should consider implementing immediately. The draft plan was then finalized for formal public review by the Planning Department and adoption by Lebanon County Commissioners by the end of 2007.



Throughout the planning process, the Lebanon County Planning Department kept project partners and the public abreast of the plan's preparation. Periodic progress reports were made to Lebanon County Commissioners, municipal officials and the four state agencies that funded the project. The project website was kept current with Task Force meeting agendas and summaries, as well as completed draft documents. Brief progress reports and presentations were made to local organizations upon request, and completed project milestones were reported through local news media.

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The comprehensive plan is intended to examine and strengthen the relationship between various functional elements, such as land use, transportation, community services and public utilities, at a specified county, municipal or multi-municipal level. The profiles of this comprehensive plan analyze these elements for current conditions and recent trends primarily within the county. The policy plans direct future decision-making based on the collective impact of the various functional elements. However the county's resources, economy, infrastructure, development patterns and even government structure do not exist independently; they are related to larger natural, man-made and political systems that exert major and minor influences on county activities, decision-making and overall community conditions.

This regional setting describes Lebanon County in terms of its political organization, physical geography, history, and economic context. These descriptions are intended to help frame a clear understanding of the internal and external conditions that influence the quality of life in Lebanon County.

Political Organization

Lebanon County is a 5th class county in south central Pennsylvania. The county encompasses 362.9 miles or 232,256 acres. Its population in 2000 was 120,327 persons. Lebanon County ranks 28th among the state's 67 counties in population and 60th in land area.

The county is comprised of 26 municipalities: sixteen townships of the second class, two townships of the first class, seven boroughs, and one third class city, the City of Lebanon. The City of Lebanon is the county seat and has historically been the center of major business and banking activity. The boroughs developed as community centers along major trade and transportation routes, connecting farmers and tradesmen with regional markets, primarily to the east and west.



The definition of "south central Pennsylvania" varies across state and local perspectives. For the purposes of this plan, the region includes Adams, Cumberland, Franklin, Perry and York Counties in addition to Dauphin, Lancaster and Lebanon Counties. These counties are used throughout the comprehensive plan as reference counties for statistical comparisons.

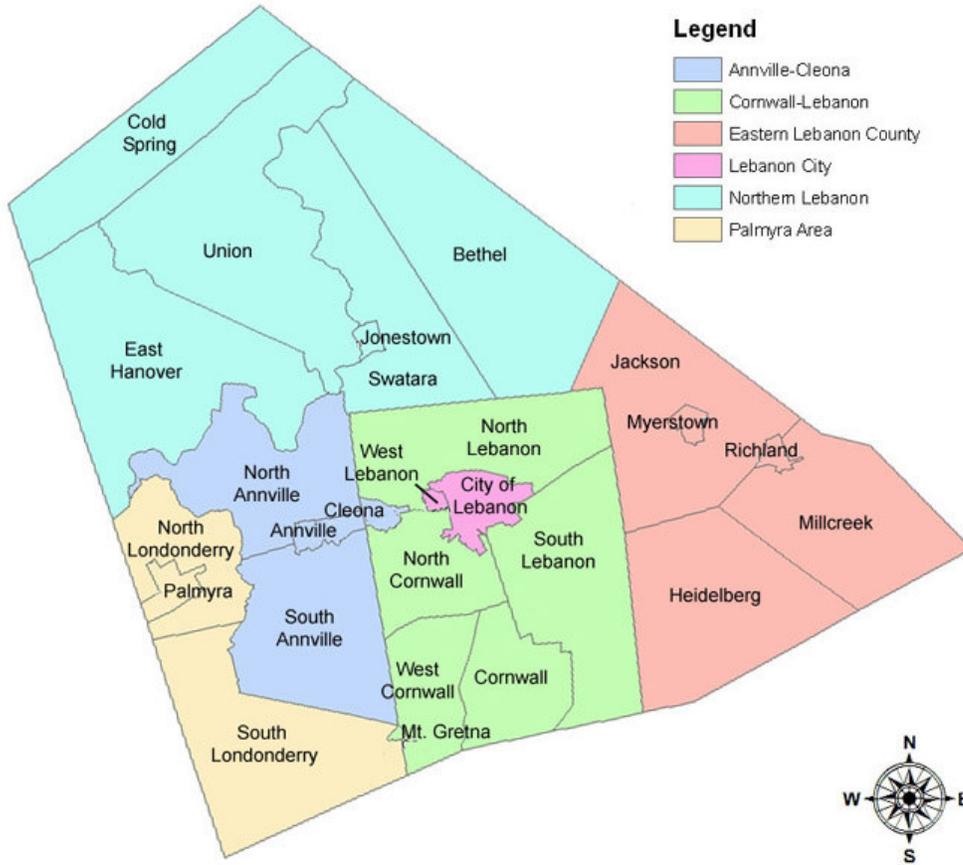


Figure 2-1 Municipalities and School Districts of Lebanon County

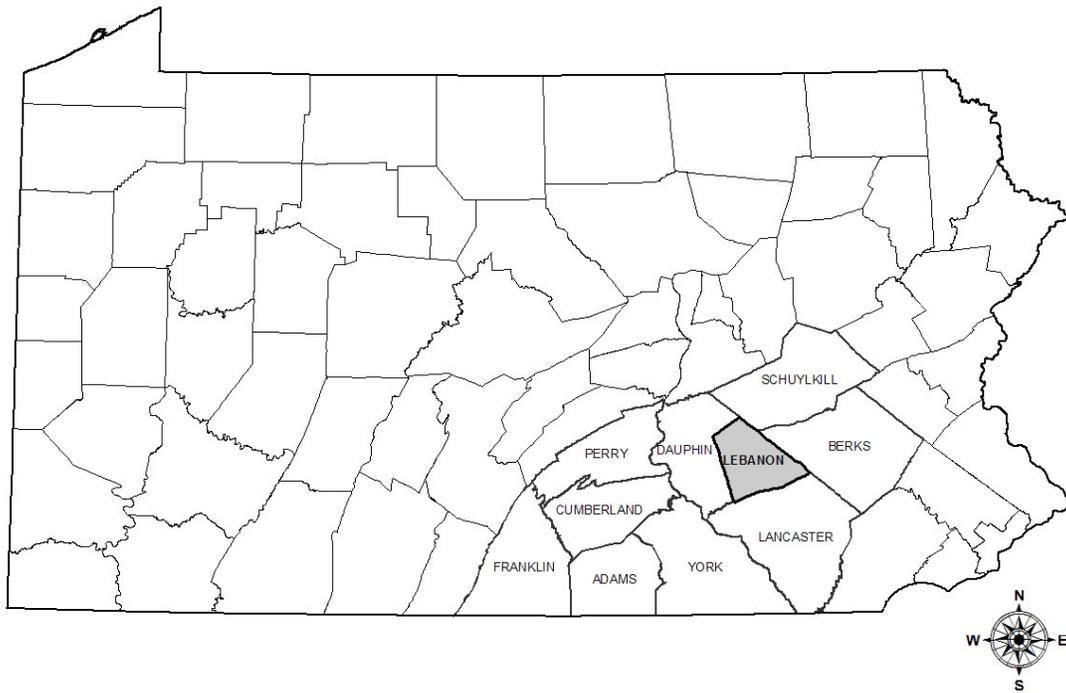


Figure 2-2 Regional Setting

Since 1979, Lebanon County has been included in the Harrisburg-Lebanon-Carlisle metropolitan statistical area (MSA).¹ As of June 6, 2003, new metropolitan areas were defined (and existing areas were redefined) based on the results of Census 2000, and Lebanon County was designated as an independent MSA. The U.S. Census Bureau is working to tabulate statistical data for new MSAs, such as the Lebanon MSA; a complete profile should be available after the next decennial census in 2010.

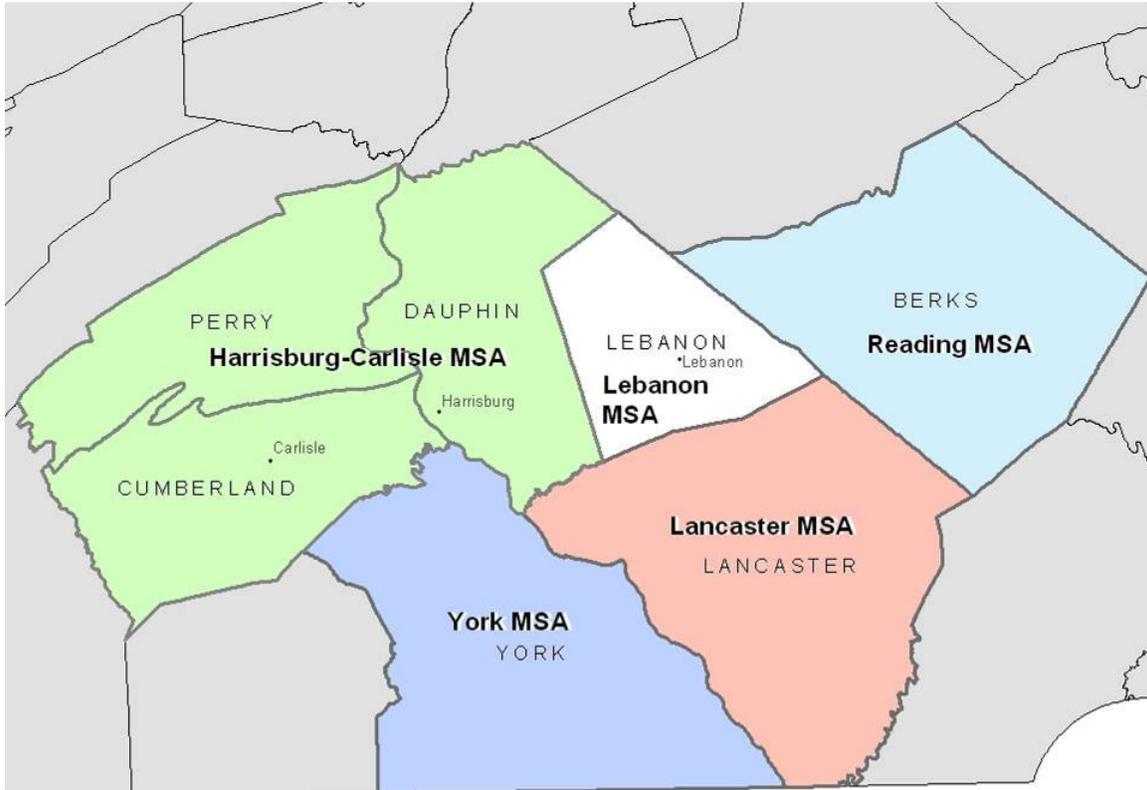


Figure 2-3 South Central Pennsylvania Metropolitan Statistical Areas, 2003

¹ An MSA is “a geographic entity defined by the federal Office of Management and Budget for use by federal statistical agencies, based on the concept of a core area with a large population nucleus, plus adjacent communities having a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50,000 or more inhabitants, or the presence of an Urbanized Area (UA) and a total population of at least 100,000 (75,000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify to be included in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban. MSAs in New England are defined in terms of minor civil divisions, following rules concerning commuting and population density.

Physical Geography

Lebanon County is located predominantly in the Great Valley section at the southern edge of the Ridge and Valley province. The northern ridge, Blue Mountain, ranges from 350 to 1,600 feet above sea level while the southern ridge, South Mountain, ranges from 700 to 1,300 feet above sea level. The valley consists of gently rolling and irregular hills of 15 to 25 percent slope in the central and southern portions with slopes to steep mountain sides on the northern faces of Blue and South Mountains of 15 to 25 percent slope and greater. The fertile soils of the Great Valley are among the most productive soils in the country and have sustained agricultural communities, including Lebanon County, from Virginia to Pennsylvania since colonial settlement.

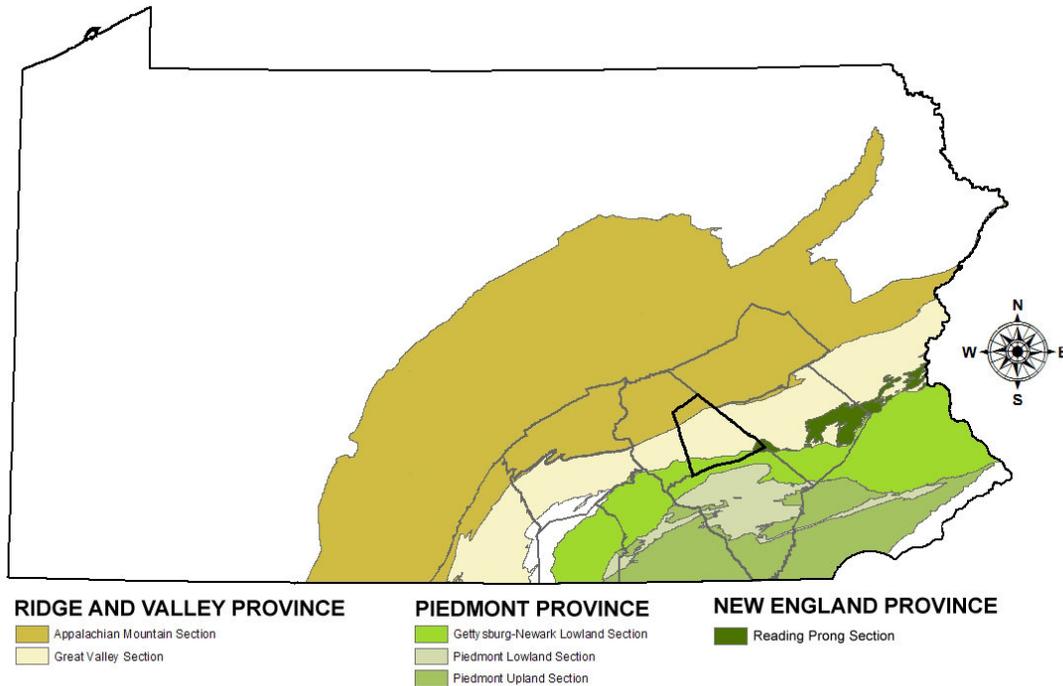


Figure 2-4 Physiographic Provinces across South Central Pennsylvania

The Blue Mountain or Kittatinny Ridge forms the northern rim of the Great Valley and hosts the largest uninterrupted forest area in central and eastern Pennsylvania. The forests of the Ridge are tremendous assets to communities along the Ridge, such as Lebanon County, for timber production, water supply, wildlife habitat and outdoor recreation, including 4 state parks, 4 state forests, 11 state game lands, and a national park trail in Pennsylvania alone. The historic Appalachian Trail follows Blue Mountain for 85 miles from the Pennsylvania-Maryland state line to the Delaware Water Gap, traveling roughly 15.5 miles through Lebanon County.

South Mountain is the Great Valley's natural southern boundary. While smaller in scale than Blue Mountain, South Mountain has played a larger role in the development of Lebanon County. The mountain's iron and red sandstone formations were heavily mined in the 1800s and 1900s. The 1970 comprehensive plan noted the significance of

these formations: “Diabase intrusions of the Triassic geologic formations near Cornwall have been known to yield 35 percent magnetite iron ore. Jackson and Annville formations of the Ordovician geological period have been the source of great quantities of limestone and dolomite used in building, blast furnace flux, cement manufacture and agriculture.”²

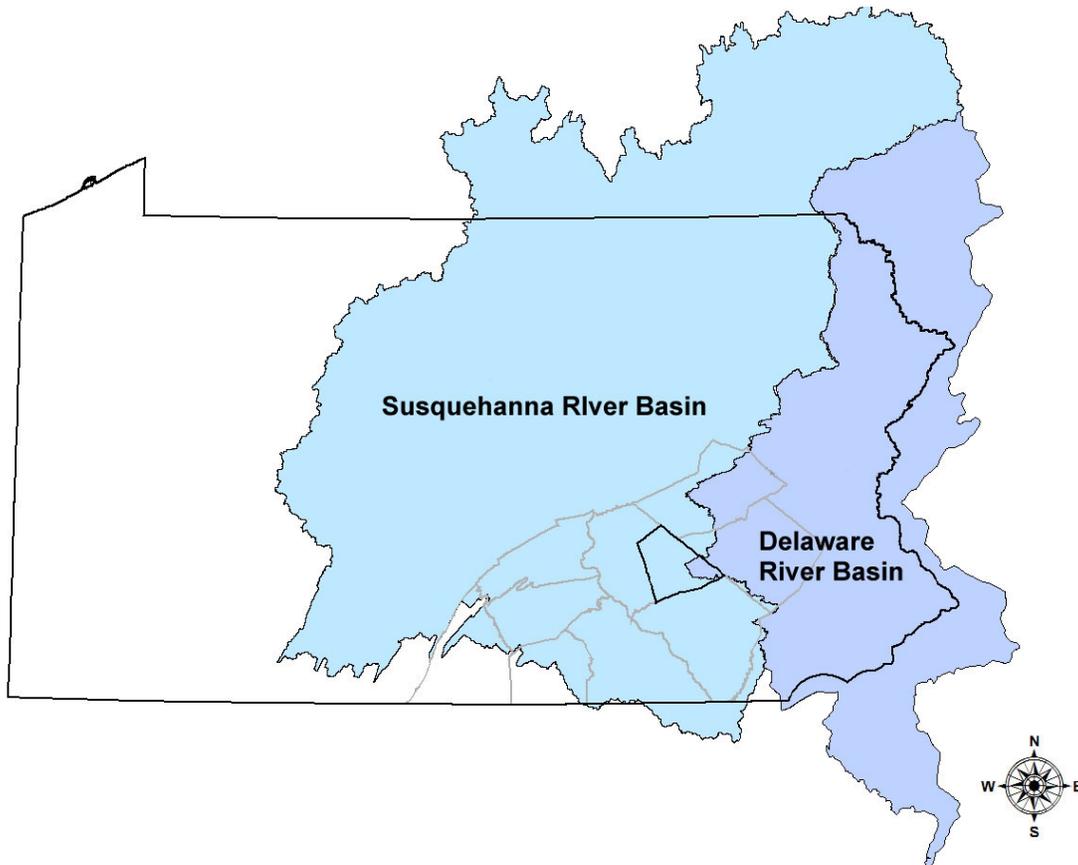


Figure 2-5 River Basins across South Central Pennsylvania

The Susquehanna and Delaware River Basins meet in Lebanon County. The Susquehanna River Basin drains the northern and western portions of the county by the Swatara and Quittapahilla Creeks. These waters pass into Dauphin County and converge with the Susquehanna River at Middletown. A few streams in the northern and southern extremes of Lebanon County feed directly into the Susquehanna River. Ultimately, these waters reach the Chesapeake Bay. The Delaware River Basin drains the eastern portion of Lebanon County by the Tulpehocken Creek. This creek joins the Schuylkill River near Reading before entering the Delaware River and Bay at Philadelphia.

² *A Report of the Geological Setting and History of Lebanon County. Part I of a Comprehensive Plan for Lebanon County.* 1958.

*Historical Settlement*³

The Lebanon Valley was first occupied by Native Americans, namely the Leni Lenapi or Delaware Indians of the Algonquin family. Though they defended their territory rigorously, they were ultimately killed or displaced from the region by the persistence of colonial frontiersmen. Fortunately, they are not forgotten, for the names they gave to local landscape features are still in use today:

- Swatara – meaning “where we feed on eels,”
- Quittapahilla – meaning “spring from the ground among pines,”
- Conewago - meaning “place of the rapids,”
- Tulpehocken – meaning “land of the turtles,” and
- Kittatinny – meaning “endless hills.”

Early settlements were defended by frontier forts. Fort Manada and Fort Swatara were established along the Kittatinny Ridge. Light’s Fort along present-day PA 72, Reed’s Fort along present-day US 22 and Fort Zeller near present-day Newmanstown were valley-based shelters during Indian raids. These locations are commemorated with historical markers.

The Lebanon Valley was settled from west to east in the early 1700s by Scotch-Irish and German families. The Scotch-Irish families, who fled Quaker oppression in Philadelphia, followed the Susquehanna River banks and settled in then eastern Dauphin County where land was available, by payment or squatting. Their heritage prepared them for frontier life with a strong sense of self-reliance and a love of hunting, fishing, and adventure. The Scotch-Irish people were civic-minded and established early social organizations. The German families were devoted farmers.



These two cultures established the original “developed” landscape of Lebanon County, though many of the Scotch-Irish later departed due to language and civic differences with the Germans. The Germans, or Pennsylvania Dutch, were and are a strong-willed people. Their history in the mid-Atlantic region has ranged from poor servants indentured by the Quakers to good farmers and industrious workers. They are also known for their stalwart religious beliefs, anti-regulatory/anti-government stance, and resistance to change. The Amish and Mennonite communities throughout south central Pennsylvania are present-day examples of such stringent beliefs.

³ Ibid.

Economic Evolution

Like many communities along the Great Valley, Lebanon County has a strong economic heritage based in agriculture. The European settlers sought out familiar landscapes to carry on the ways of life they knew. Initially they used the tools brought from home to clear the land and build their homes. But eventually, they needed replacements. Since imports were expensive, the pursuit for local metal ores began.

Beginning in the 1840s, the county's economy began to focus on the rapidly developing iron industry. Early furnaces and forges were operated by individual owners who exported pig iron to Berks and Lancaster markets. As the industry grew, these small operations were incorporated and expanded to serve larger urban markets as far away as Philadelphia. The need for more workers led companies to build housing, such as Miners Village and Burd Coleman, and establish general stores for workers' families. Blacksmiths, carpenters,



tanners and other merchants were soon attracted to the budding communities of Cornwall and Union Forge where their services were in high demand. Outside of these communities, land prices rose rapidly as speculators bought and sold land in hopes of finding expansive ore deposits.

Technological innovations led to the birth of tool and dye manufacturing in the later 1800s and further diversified the county's economy. Charcoal-based, cold blast furnaces were replaced by anthracite coal fired, hot blast furnaces. Steam replaced water as the primary source of power. Together with a strong local iron industry, a thriving steel industry developed in the 1900s. Stoves, tools, valves and fittings, cannons and ammunition were soon produced by several small, independent businesses.

Seeking greater efficiency in production, small operators in Lebanon and Berks Counties merged into a single larger company, the American Iron and Steel Manufacturing Company, based in Lebanon, at the turn of the 20th century. Shortly thereafter, demand for higher wages resulted in a labor shortage and was followed by a wave of immigrants hired from the south. The transition to the new workforce was not an easy one but operations continued until 1927 when the company was purchased by the Bethlehem Steel Company.

The decline of the American steel industry began in the 1970s. The consolidation and closure of steel plants across the region impacted Lebanon County, led to economic recession and significant changes in employment. The 1980s and 1990s were periods of transition as the economy recovered, diversified, and grew into global markets.

Transportation and trade industries have taken advantage of the region's location along the national highway and interstate system, developing and expanding warehousing and trucking facilities along the I-81, I-78, I-76, and US 22 and US 422 corridors. The shift from a manufacturing-based economy to an information-based economy has resulted in growth in the services industry.

Today, five of the county’s top ten major employers (Fort Indiantown Gap, the VA Medical Center, Farmers Pride, Inc., Swift, and the US Army) serve markets beyond Lebanon County. The remaining top ten employers serve primarily county residents though they may also serve residents from adjacent communities.

Table 2-1 Major Employers Located in Lebanon County

Major Employers (based on 2nd Quarter 2004 - Initial Data)	Industry
Pennsylvania Army and Air National Guard (based at Fort Indiantown Gap Military Reservation)	Public Administration
Veterans Administration Medical Center	Health Care and Social Assistance
Lebanon County	Public Administration
The Good Samaritan Hospital	Health Care and Social Assistance
Farmers Pride Inc	Manufacturing
Philhaven Hospital	Health Care and Social Assistance
Swift Transportation Co Inc	Transportation and Warehousing
Wal-Mart Associates Inc	Retail Trade
US Army National Guard (also based at Fort Indiantown Gap Military Reservation)	Public Administration
Cornwall-Lebanon School District	Educational Services

Source: PA Department of Labor And Industry, Center for Workforce Information and Analysis

Transportation Connections

Farmers were responsible for the first major transportation improvements in the county, as they sought ever faster routes to carry their goods to regional markets. The Berks and Dauphin Turnpike was constructed through the heart of the county with stops in Myerstown, Lebanon, Annville, and Palmyra, among others. The Union Canal, another trade route, connected the Susquehanna River at Middletown to the Schuylkill River at Reading passing through the county just north of the city and through Myerstown. These trade routes carried farm products, raw and processed timber, iron and iron ore, supplies and even travelers to and from the county.

Today, the National Highway System serves Lebanon County through multiple highways and interstates that connect county residents and businesses with mid-Atlantic, Great Lakes and near mid-West metropolitan centers.⁴ The combination of location and infrastructure network give Lebanon County a strategic advantage in the “Keystone State.”

- US Highway 22 begins in Newark, NJ and ends in Cincinnati, OH primarily following the William Penn Highway. US 22 facilitates east-west travel between the Allentown-Easton, Harrisburg, Altoona, and Pittsburgh regions.

⁴ <http://www.us-highways.com> (March 24, 2005)

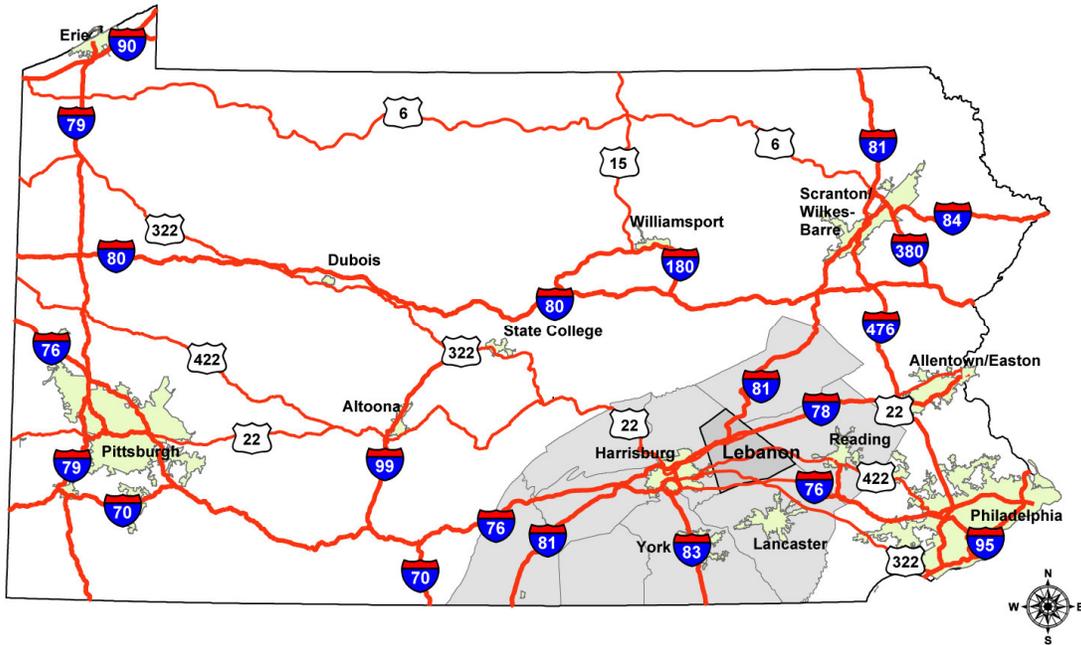


Figure 2-6 Interstate Highway System across Pennsylvania

- US Highway 322 begins in Atlantic City, NJ and ends in Cleveland, OH, providing east-west mobility between the Philadelphia, Lancaster/Berks, Harrisburg, State College, Dubois, and Meadville regions.
- US 422 is the main east-west arterial in Lebanon County. Historically, the US 422 corridor has been a population center and a focal point for business activity in the county. One of the qualities that makes US 422 unique is that it was built in two separate segments and never connected. The western segment begins in Cleveland, Ohio and extends east to Ebensburg, Pennsylvania. The eastern segment extends from Hershey to King of Prussia, Pennsylvania.
- US Interstate 76 (the Pennsylvania Turnpike) passes through the southwest corner of Lebanon County. It begins at the Pennsylvania-New Jersey state line at Trenton, NJ, and travels westward to the Pennsylvania-Ohio state line just south of Youngstown, OH. The Lebanon-Lancaster interchange is located along PA 72.
- US Interstate 78 superseded US 22 as the main highway link between New York City and central Pennsylvania via I-81 near Lickdale.
- US Interstate 81 begins in the Knoxville area of Tennessee and ends in northern New York State. “I-81 does not enter major metropolitan areas; it instead serves smaller cities such as Roanoke and Winchester, Virginia; Hagerstown, Maryland; Harrisburg and Scranton, Pennsylvania; and Binghamton and Syracuse, New York. After passing through Watertown,

Interstate 81 crosses the St. Lawrence Seaway to meet Ontario 401 in Canada.”⁵

- Interstates 78 and 81 are major trucking routes carrying a significant amount of traffic destined for rail yards in the Harrisburg area.

Additional Pennsylvania highways contribute to the ease of regional travel from Lebanon County by providing north-south connections between regional communities and the US and interstate highways.

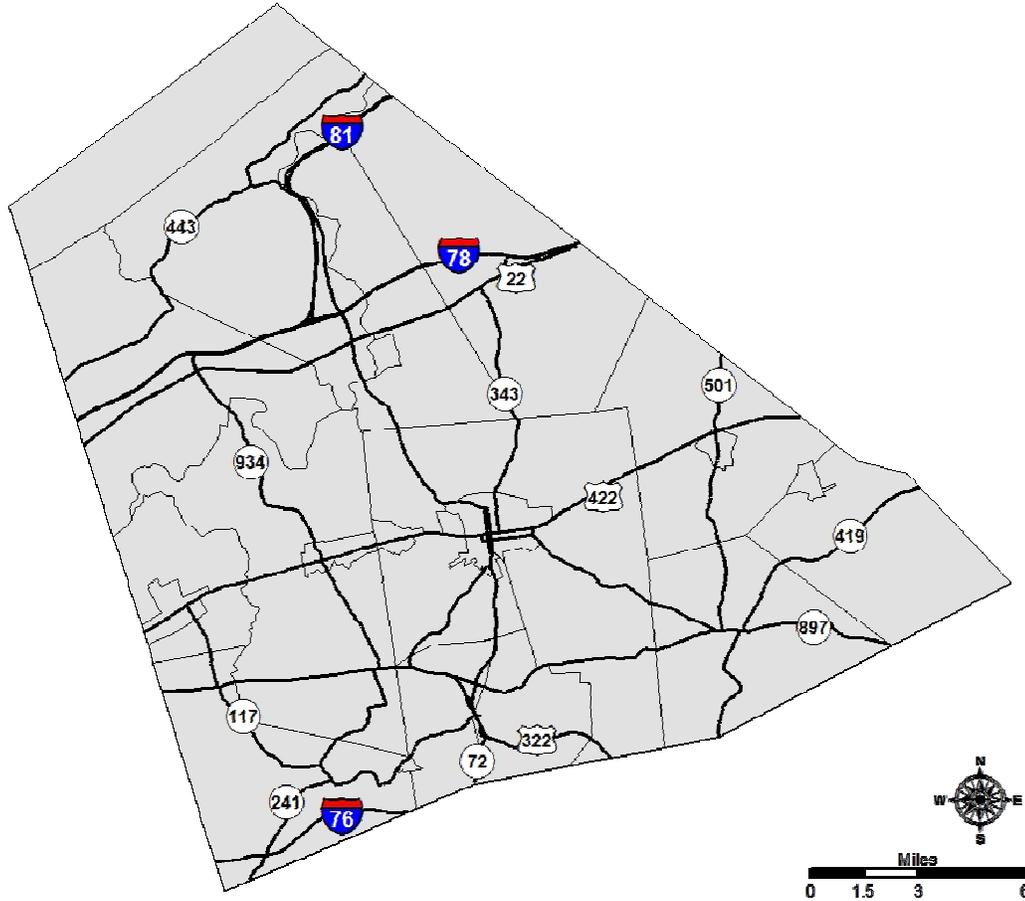


Figure 2-7 Highway System across Lebanon County

- PA 72 begins north of I-81, travels through Lickdale and Lebanon, and continues southward to Lancaster.
- PA 117 begins in Palmyra along US 422, travels through Campbelltown and Mount Gretna, crossing US 322 and ends at PA 72 south of the Lebanon.
- PA 241 travels south from Lebanon through Elizabethtown to PA 441 along the Susquehanna River.

⁵ <http://www.interstate-guide.com/i-081.html> (March 24, 2005)

- PA 343 travels north from Lebanon (along N. 7th Street) to Fredericksburg.
- PA 419 begins in West Cornwall and travels east and north, crossing US 422 and PA 183 in Berks County.
- PA 443 begins in the village of Heckton along the Susquehanna River and follows the first valley to the north of Blue Mountain along Fishing Creek in Dauphin County, Upper Swatara Creek in Lebanon County, crossing the Schuylkill River east of Schuylkill Haven and following the Mahoning Creek to Leighton in Carbon County; it crosses no major interstates or highways within Lebanon County.
- PA 501 begins at Pine Grove just south of I-81 in Schuylkill County, crosses I-78, US 422 and US 322, and ends at Lancaster.
- PA 897 travels south from Lebanon through Schaefferstown, Kleinfeltersville and several older Lancaster County villages to US 30 in Gap in southeastern Lancaster County.
- PA 934 begins near Fort Indiantown Gap and travels south through Annville across US 422 to the US 322 corridor.

Lebanon County once had a handful of rail lines connecting it to regional markets. In fact, the success of the iron industry and railroads fueled non-agricultural industry development. Today, the county is connected to the nation-wide rail freight network by the Norfolk-Southern Railway Company who owns and operates a rail freight line parallel to US 422. The rail line connects to the larger regional rail network, including rail yards and intermodal hubs, such as Rutherford Yard and Enola Yard, in the Harrisburg area.

Regional and State Trends and Analysis

Regional growth pressure impacts Lebanon County from nearly all sides—from Dauphin County to the west, from Lancaster County to the south and from Berks County to the east. “The county’s close proximity to the urbanized [and growing] areas of Harrisburg/Hershey and Lancaster makes it an attractive location for residential developers and potential buyers. The rural nature of much of the county, coupled with reasonable commuting distances, attracts workers from surrounding urban areas.”⁶

Regional employment projections for 2010 prepared by the Pennsylvania Labor and Industry indicate that employment in the transportation, wholesale and retail trade, finance, insurance, and real estate, and services industries in the Harrisburg-Lebanon-Carlisle MSA is expected to increase. Similar conclusions were drawn for the South Central Workforce Investment Area, covering Adams, Cumberland, Dauphin, Franklin, Lebanon, and Perry Counties.

⁶ Lebanon County Profile at www.teampa.com/foundation/

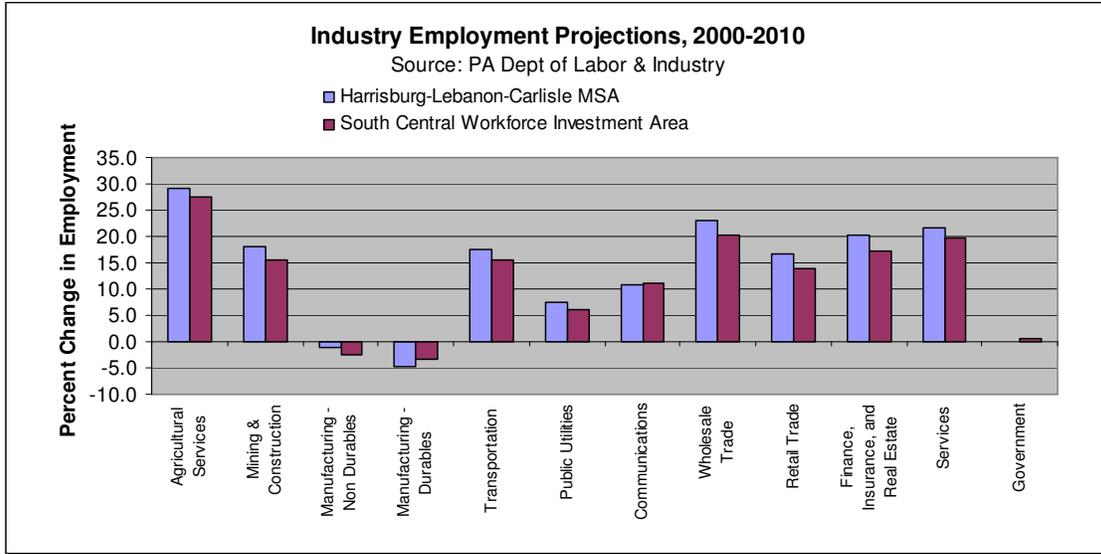


Figure 2-8 Industry Employment Projections, 2000-2010

The Brookings' Report: *Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania*

The Brookings Institution's Center on Urban and Metropolitan Policy published a report in 2004, *Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania*. The report identifies demographic and economic trends that have collectively affected Pennsylvania's ability to sustain livable communities and prosperous economies, including:

- **Cities, towns, and older suburbs are losing population.** The state ranks among the top five in the loss of young workers and out-migration.
- **While population is nearly stagnant (only 2.5 percent growth from 1982-1997), land consumption for urbanized uses is up 47 percent.** Pennsylvania ranked 6th in the acres of land urbanized between 1982 and 1997.
- **The economy is unfocused in its response to industrial change.** The state ranked among the lowest for percentage income growth (1990-2000), new business starts and growth (2001), and percentage employment growth (1992-2002).

The report concludes that Pennsylvania can once again be competitive “if it focuses its efforts; leverages the assets of cities, towns, and older townships; and overhauls its most outdated and counter-productive policies and practices.” This includes “getting serious about planning and coordination,” by prioritizing investment in infrastructure, education, and select industries, redeveloping unproductive lands, and promoting cooperation.

Post-report commentary by the authors further states that the report is not a wake up call for urban communities alone—in fact, they state that older doesn't necessarily mean urban. Many rural areas have experienced the same trends, simply at smaller scales. Accordingly, better decision-making should be a goal in both urban and rural communities to learn from the past and lay the foundation for a better future.

This report is relevant to Lebanon County, for the county parallels the state in many of these key trends:

1. Older communities struggle with population declines; residents have been moving out of the City of Lebanon and the county's core communities to new neighborhoods in adjacent or nearby townships.
2. Young people are leaving for "greener pastures;" young residents are following career opportunities and lifestyle amenities not available in Lebanon County.
3. The service sector dominates employment growth; lower wages in the service industries draw down personal income and increase the need for social services.
4. Development is consuming land more rapidly than ever before; able to afford more property at lower tax rates, residents are developing larger properties than those they owned in the city, boroughs and older suburbs.
5. Agriculture is evolving from a world of family farms to the world of big business; farms while fewer are producing larger quantities, resulting in more intensive operations than the farms of the 19th century.

The Brookings' Report is not a comprehensive plan for Pennsylvania or for Lebanon County; however, its recommendations will be reviewed and referenced where it is appropriate to note opportunities for benefits from statewide initiatives.

The PA Prosperity Coalition Report: *Forward to Prosperity: Removing Obstacles to Pennsylvania's Economic Performance*
by Michael Young Strategic Research, 2005

Forward to Prosperity was sponsored by the Pennsylvania Prosperity Coalition, a group of community and business organizations, in response to *Back to Prosperity*. It critiques the Brookings' report and provides an alternate perspective of barriers to community and economic prosperity in Pennsylvania and methods to overcome them. While the two reports present differing views on the root causes of weak economic performance, together they have stimulated more discussion about land use policy than Pennsylvania has witnessed in the past 30 years. It is this discussion that is most relevant to county and local planning in Lebanon County.

This report argues that sprawl and unplanned growth are not the sole, nor even primary causes of urban decline, loss of educated youth, and weak economic growth in

Pennsylvania, rather it suggests that many factors have contributed to these conditions and therefore many conditions will need to change to reverse this trend. It argues that while some of Brookings' observations and conclusions are sound, portions of its analytical methodology are faulty; conclusions are misleading; and recommendations are presented without consideration for impacts or cost-benefit evaluation. It also cites recent research by scholars on the causes of lagging economic performance and declining urban centers—research that the Brookings' report does not acknowledge:

1. Federal government transportation and housing policies that have made locating or relocating in non-urban areas comparatively inexpensive.
2. Structural changes in the economy created by free trade and technological efficiencies.
3. Poverty exacerbated by the flight of middle class role models and ineffective welfare programs.
4. Decline in the quality of city schools influenced by the fiscal conditions of school budgets and their ability to attract and retain quality teachers.
5. Crime and the public perception of crime intensified by media hype, leading to exaggerated fear of crime.

As an alternative, *Forward to Prosperity* provides nine major recommendations for its noted causes of lagging economic performance and urban decline:

1. Fight sprawl with high-density mixed-use zoning
2. Reverse the trend of low quality city schools
3. Establish effective regional planning
4. Plan infrastructure to support future growth
5. Restore balance between open space and urban needs
6. Enact needed regulatory reforms
7. Reduce Pennsylvania's onerous business taxes
8. Improve coordination among state and local agencies
9. Encourage affordable workforce housing

Forward to Prosperity may have equally missed the mark in terms of correlating causes of poor economic prosperity and urban decline and corrective actions. Perhaps it assumes that changes at the federal level are not reasonable to expect; therefore, only recommendations at the state, county and local levels are proposed. In fact, some of

these recommendations lack the support of technical analysis beyond the public input to the report, one of its own critiques of the Brookings' report. Nonetheless, these ideas contribute to the discussion of how to improve Pennsylvania's economy and sustain its urban centers and offer analysis of community and economic planning as it currently occurs in communities across Pennsylvania.

The PSATS Report: Growth, Economic Development, and Local Government Structure in Pennsylvania

A Research Report commissioned by the PA State Association of Township Supervisors, prepared by Wendell Cox Consultancy, June 2005

A second rebuttal to the Brookings' Report was issued by the PA State Association of Township Supervisors (PSATS) in *Growth, Economic Development, and Local Government Structure in Pennsylvania*. This research report refutes several ideas put forth in *Forward to Prosperity*:

- Suburbanization patterns in Pennsylvania are typical
- Small governments cost less
- Suburbanization and greater democracy are unrelated to economic growth
- Economic growth in PA is typical for a Frost Belt state
- Greater democracy serves as a barrier to special-interest control
- Suburbanization gives residents more choice

Recommendations offered in the report's Executive Summary are:

- Encourage and strengthen policies that foster economic development and avoid strategies that increase land, housing, or product pricing.
- Reject any forced municipal consolidation, recognizing that the outcome would spread the higher costs and less efficient practices of one jurisdiction across an even larger area, to the detriment of taxpayers.
- Review the options for closing the financial performance gap between the cities of Philadelphia and Pittsburgh and other more cost-efficient cities, boroughs, and townships of the 1st and 2nd classes.

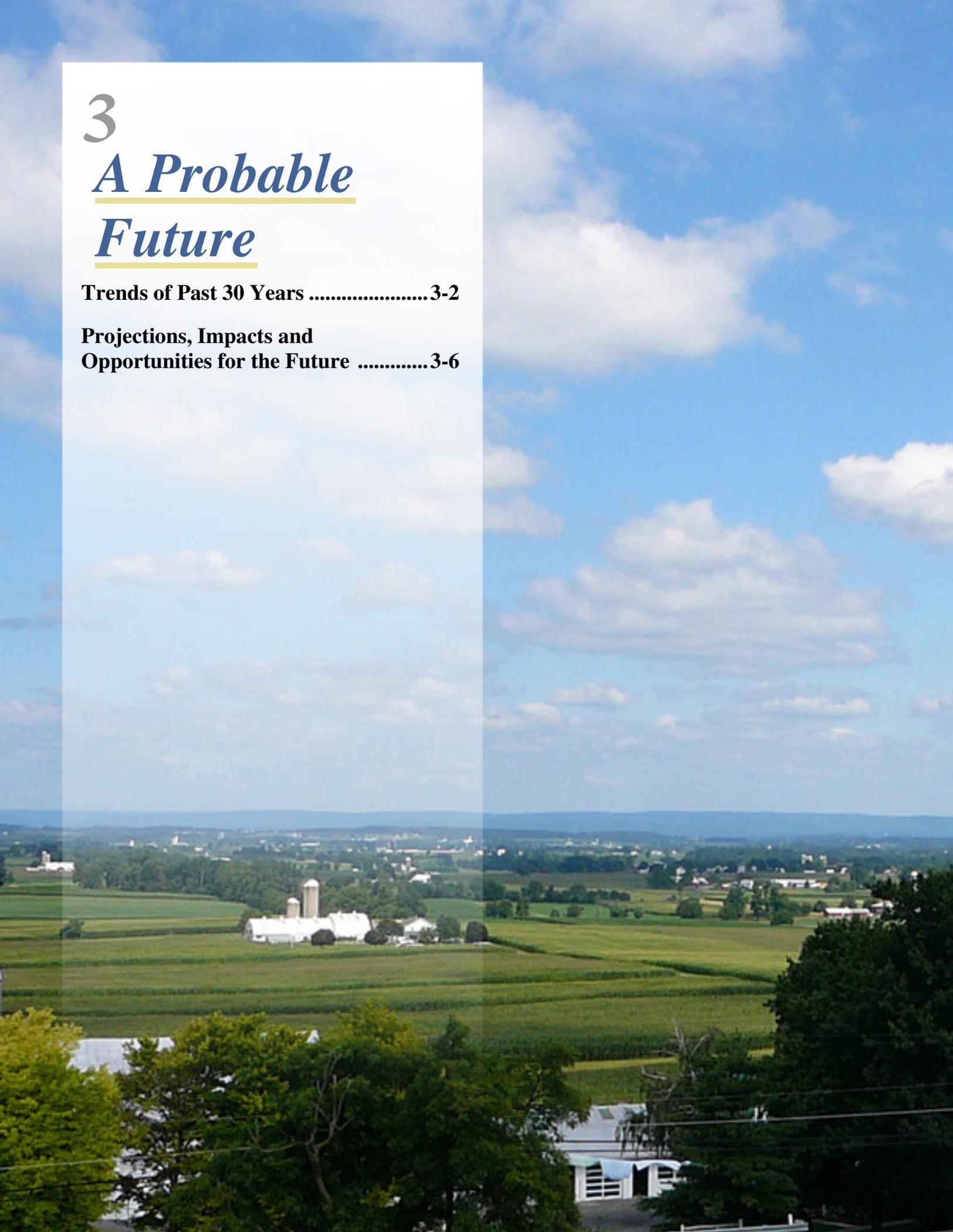
While there are many perspectives on the methods of change, these three reports clearly agree that reform to the conventional methods of community and economic development is needed in Pennsylvania. What types of reform and what entities are responsible for these changes will only be determined through continued dialogue among government officials and the private sector. Changes at federal, state and local levels may all be needed. A comprehensive solution may take many more years to settle and implement. In the meantime, there is room for improvement in local polices and practices within current legislated authority.

3

A Probable Future

Trends of Past 30 Years3-2

**Projections, Impacts and
Opportunities for the Future3-6**



Lebanon County's physical location and regional context have had a strong influence on its evolving community development, infrastructure patterns and overall character. Together with the cultures of its people, they have shaped its economy, its institutions, and its public services. Recent trends in each of these areas indicate the kinds of changes in community development that the county, its municipalities, its leaders and its citizens are facing at the outset of the 21st century. If projected, they may further suggest issues and opportunities the county will face in the future—issues that could be avoided with timely intervention and action that would benefit from advance preparation.

Trends of the Past 30 Years

In some ways, life in Lebanon County hasn't changed much over the past 30 years. As seen from the road, the county's landscape is still dominated by agriculture and woodlands. Route 422 is still the primary commercial corridor with Route 72 running second, and Routes 22 and 322 being equally busy with local and regional traffic. Most residents live within just a few miles of these major corridors and use them for their daily commutes to work within and beyond the county. Residents young and old still play softball and float down the Swattie and the Quittie in the summertime and visit Governor Dick and Hawk Mountain in the spring and fall.



But in many ways, life in Lebanon County has changed since the late 1980s. There are more people, driving more cars, creating more traffic, requiring more homes and more public services. Family-owned stores and filling stations are being replaced by larger and sometimes franchise and corporate operations. Suburban malls and shopping areas have replaced traditional downtown centers for business and personal services. Residents drive more frequently to the Harrisburg and Lancaster areas for employment, entertainment and shopping. Time has brought changes within the county and in the surrounding region that have made an impact on communities, the economy, the environment, quality of life and the way local government provides services.

The Changing Size and Character of Development

Between 1990 and 2000, a total of 4,686 new homes were constructed in 21 of 26 municipalities in Lebanon County. From 1990-2004, the number of planned lots approved each year rose from approximately 500 to approximately 900 annually. For the most part, this residential development occurred in areas planned for new homes and served by public water and sewer utilities. However, conventional residential development of the past 30 years has consumed more land per lot than the traditional development of Lebanon County's past, changing the size and character of new

neighborhoods. Retail stores have also grown a larger footprint, as many have expanded their merchandise lines to offer “department store” variety. They have continued to migrate toward the consumer’s travel routes rather than the home or business neighborhood at the direction of local zoning ordinances. Larger parcels for larger stores and parking lots have consumed much of the vacant land planned for commercial development.

The Establishment of Farmland Preservation

With between 100,000 and 130,000 acres actively farmed, the fields, pastures and farmsteads have remained prominent features of the county’s landscape. Farmers were increasingly challenged with development and industry pressures in the 1980s when Pennsylvania authorized the Agricultural Security Act to strengthen the farming community’s sense of security in land use and the right to farm. When the Pennsylvania Agricultural Conservation Easement Purchase Program was developed in 1988 to fund the protection of farmland from development, Lebanon County established its Agricultural Land Preservation Program to become eligible for state matching dollars. Today more than 57,000 acres of farmland are enrolled in the Agricultural Security Act program and are eligible for the county’s farmland preservation program, yet only 1 in 5 of these acres have been preserved.

The Evolving Role of Downtown Centers

If population and job loss were the only indicators of the health of a community, the City of Lebanon’s future might be in jeopardy. However, a number of factors suggest that the city has begun to turn around some negative trends. In fact, its assets are key components of revitalization ready to happen. The Community of Lebanon Association, a volunteer group of retailers, financial institutions, businesses and community minded citizens and organizations, was formed to strengthen the business climate and quality of life in downtown Lebanon. Lebanon 2000, Inc. was established as the private, not-for-profit economic development organization focused on business, finance and technical assistance for downtown business owners and developers, including the city’s Main Street Program. The success of these downtown improvement efforts led to the city’s application for Pennsylvania’s Elm Street Program, a program designed to strengthen neighborhoods adjacent to downtown districts. In addition, the Harrisburg Area Community College offers opportunities for advanced workforce training in downtown.



The overall appearance of owner-occupied homes suggests that residents maintain many of their neighborhoods with pride. In an effort to bolster the same level of maintenance among rental properties, the city passed a rental unit ordinance that requires annual inspection. Examples of adaptive reuse, such as the train station now occupied by the H. H. Brown Group and the rehabilitation of the 8th Street Marketplace, exemplify the possibilities of retaining historic buildings and streetscape character and meeting contemporary office and retail needs. These assets provide a foundation for a strategic plan to breathe new life into Lebanon.

In addition to the City of Lebanon, the county contains a number of boroughs which have been and should continue to be centers of economic, cultural, academic and family activity. Indeed, the county's 1987 Interim Plan identifies and promotes the area along the Route 422 corridor, the most urbanized corridor, as an area of mixed commercial, industrial and residential use. In order to ensure the long term success and functionality of this vision, new and improved ways to strengthen the viability of these urban environments and address the threats to community vitality—increasing commuter distances, reduced volunteer time to civic organizations, and increasing costs in providing services, among others—are needed to prevent a lost sense of community. In conjunction with City revitalization concepts, this plan will need to address the broader notion of community vitality across the county.

Continued Diversification of the Economy

Lebanon County's agricultural industry has evolved into a broad base of producers, processors and distributors. Lebanon bologna is probably the most well known product produced in the county, though poultry processors have made chickens another recognized Lebanon County commodity.

While Lebanon County is trending toward a stronger service economy, employment gains in trucking, electronic trading, and food products are healthy signs of economic diversity throughout several industries. Services are certainly in demand along the urban corridor, and warehousing has expanded along the I-81 and I-78 corridors. Increased tourism to the City of Lebanon, the Expo Center and the Route 422 and Route 72 corridors, may also be considered as a means of diversifying the economy as it increases revenues and creates jobs and activities.

A Renewed Transportation Planning Mission

The county's population increase has not only changed the county's status from a rural to an urban county, but also its approach to transportation planning. While the county has planned for transportation and circulation needs as part of its comprehensive planning efforts since 1970, the new federal Metropolitan Statistical Area classification calls special attention to transportation's ability to directly impact the county's economy and quality of life. As a Metropolitan Planning Organization (MPO), the process for developing and implementing a transportation plan is more regimented. The intent of the Lebanon County MPO (LEBCO MPO) is to conduct a process for anticipating and programming system-wide safety, maintenance and operational improvements, to ensure that public funding for transportation is spent effectively and efficiently and includes the opportunity for public involvement and input.



Trends in transportation, land use, employment patterns, and industry shipping, among others, have revealed the following issues that require careful analysis as short-term and long range transportation decisions are made.

- Far too many bridges in Lebanon County are structurally deficient and/or functionally obsolete.
- Between Harrisburg's Rutherford Yard and Lebanon, Norfolk Southern's Reading Line has 13 at-grade crossings - a high number for a railroad in the Northeast.

This line is very heavily used, and Norfolk Southern would like to expand its rail freight operations in this corridor; while others hope to see passenger rail service (*CORRIDORtwo*) in the coming decades.

- I-78 has substandard design over most of its length in Lebanon County, with low bridge clearances as well as the lack of good shoulders. Trucks currently account for 40 percent of I-78's total traffic volume. US Route 22, which serves as a parallel facility, is in poor condition and presents challenges when used as a detour if I-78 is closed during an incident. Major safety, maintenance and operational improvements are presently being implemented along this entire route, but the corridor needs to be tied into a regional operations plan.
- More than 20 percent of Lebanon County workers commute to destinations in neighboring Dauphin County. More transportation options are needed to address the growing number of residents who travel daily to Hershey and beyond.
- In 2002, Capital Area Transit adopted a vision for *CORRIDORtwo* from York to Harrisburg and from Harrisburg through Hershey to Lebanon as one segment of a regional rail system for south central Pennsylvania. The first corridor, *CORRIDORone* still faces several issues, namely the physical, operational, financial and institutional feasibility, as well as the public/private support and political will to make it happen. Yet exploratory planning for *CORRIDORtwo* is underway, as a result of public-private partnerships along its route.
- Portions of Palmyra Borough and North Londonderry and South Londonderry Townships are considered part of an adjacent MPO, the Harrisburg Area Transportation Study. In late 2008, it is hoped that these municipalities will be brought into the LEBCO MPO, but the federal, state, local and private funding sources for the transportation improvements have not increased substantially to adequately address the area's many and varied problems.

Connections to the Past

Lebanon County culture is rich in history. From the county's occupation by Native Americans to its early colonial industries of agriculture and iron works to its role in the evolution of transportation in Pennsylvania—river, canal, rail and highway—features of the county's heritage is woven throughout its communities in parks, named buildings and farms, historic districts, and historic markers. Protection of these resources will help to preserve the visual character of the county landscape. To that end, the Historic Resources Plan component of the project outlines protection methods appropriate for assets of both county and local significance. More importantly, access to the stories behind these features will help preserve the heritage of the county. Therefore, the plan will also need to consider how greenways, bicycle and pedestrian routes, and scenic byways can connect residents and visitors alike to the heritage of Lebanon County.



Employer, Recreation Provider and Resource Manager

One of the most unique assets available to Lebanon County is the Fort Indiantown Gap Military Reservation. The Gap offers more than 17,000 acres of training areas to military and civilian personnel from around the country. It employs over 1,300 full-time employees and trains thousands of soldiers and civilians yearly. The Gap has been aggressively pursuing new training missions, constructing new facilities and adopting new training policies toward realizing its vision of becoming a premier training facility on a national level. The establishment of new helicopter training simulators, maintenance operations, schools and the Northeast Counterdrug Training Center are just a few of the concrete manifestations of this pursuit.

In addition to its intensive training facilities, the Gap contains extensive natural resources and recreational opportunities. Land managers at the Gap have undertaken streambank and wetland restoration activities and set aside over 150 acres for habitat research and protection areas for rare species. The protected lands of the Gap contain significant and unique recreational opportunities including hunting, hiking and fishing. The Gap is currently undertaking a master planning project to establish its priorities for facility development and infrastructure support.

Projections, Impacts and Opportunities for the Future

Lebanon County has been responding to these and other changes in community growth and development. This response is seen in steps that the county, its municipalities and various community organizations have taken through adoption of new codes for new development, formation of the Lebanon Valley Conservancy, and conservation plans for water resources. These efforts are acknowledged for the positive effects that they have had on residents and local communities.

Extensive study of current conditions, recent trends, foreseeable projections, and opportunities for coordinated planning and investment are presented in 10 background studies of the comprehensive plan. Yet, for as much information as has been collected and analyzed in the preparation of the comprehensive plan, there is no guaranteed picture of the county's future. What can be offered are the general trends and findings from these technical reports viewed as a whole and qualitatively projected toward the year 2020 as a description of probable conditions and strategic opportunities for affecting the continued change that lies ahead.

More Development, More Preservation

Lebanon County has grown, is growing and will continue to grow in both the size of its population and in the amount of land intensively developed to provide jobs, housing, schooling, services and recreation. Relative to the surrounding counties, Lebanon County will continue to be known for a high quality of life that includes low cost of living, excellent health care, good schools and other community facilities, and nearby opportunities for recreation and entertainment. This population growth will create more workers whether within the county or commuters to other counties, more students in schools, more

Challenge

- Accommodating growth and sustaining open spaces

Opportunity

- Re-use traditional, common sense practices in modern regulations

commercial services seeking to serve residents and more public services needed to support the various residential, business, and cultural aspects of community life.

By 2020, Lebanon County can expect to see 14,500 to 15,500 new homes for nearly 20,000 new residents. Much of this new development will likely be located within the 20,000 acres planned for residential development; most will be served by public water and sewer utilities. But new homes will also likely be built outside these service areas, scattered among the county's farming communities and forest landscapes, where conventional development and modern family lifestyles can be nuisances to agriculture and the integrity of the natural environment. As long as employment opportunities continue to expand in the Harrisburg and Hershey regions, more housing will be developed in the Palmyra Area and Northern Lebanon School District regions. Housing growth will continue in the Cornwall-Lebanon School District, supported by local employment and turnpike access to Harrisburg and Carlisle and to suburban and downtown Philadelphia. Growth in the ELCO School District region will result from employment opportunities in the greater Reading area, as well as from individuals and families seeking rural and small town living within practical commuting distance to the greater Philadelphia region.

Housing constructed in the past few years is becoming more diverse in building types and styles, offering wider choices to those looking to upsize, downsize, or relocate into the county. But the total number of units that offer housing options for first-time home buyers, young professionals, and senior (though active) households is still low.

In the context of regional development pressure, housing values are likely to increase, reducing affordability for the already low and fixed income residents. Fewer subsidies from the federal government will be available for low income households, with greater competition among those that are available. If values and wages rise, home maintenance will likely occur; however, if wages fall in comparison to housing values, property owners may have other priorities for their income and the overall quality of the housing stock may suffer.

In contemporary planning, the saying goes that commercial development follows the rooftops to serve consumers with a variety of products and services. In some instances, commercial market analysts even anticipate those rooftops by reviewing the local zoning policy. Yet this pattern and practice operates in contradiction to traditional community development where home, work, school and civic or community buildings were located in proximity to one another – at one time, within walking distance and later, within a few minutes drive. Our contemporary society emphasizes greater choice in career tracks and occupations, and therefore, perhaps less choice in workplace location. Yet, better land use planning for home, school and community locations can still support and sustain vibrant, healthy communities.



Other employers, particularly industries that require large parcels and quick access to the distribution systems, will locate along I-81, I-78 and US Route 22 corridors and the Norfolk Southern rail line paralleling US Route 422. Depending on the rate of growth,

the private sector may press for expansion of current business and industry zones along prime transportation corridors—highway or rail.

This growth will be “balanced” with continued progress in land conservation. As a result of ongoing programs and outreach, as well as the environmental ethics of younger generations, the amount of land preserved for farmland and conserved for environmental protection and open space will likely also increase. The rate of this increase will depend on the funding available for easements and acquisitions and on the efforts made to educate property owners on the environmental and economic benefits of conservation alternatives to development.

Searching for an Economic Identity

Lebanon County’s leading employer, Fort Indiantown Gap, will continue to be an important economic and environmental partner in the county’s future. New missions are relocating to the Gap, and as a result, extensive expansion and renovation of Gap facilities is underway. The Indiantown Gap National Cemetery and the Pennsylvania Veterans Memorial will continue to draw visitors to the county for special celebrations. With on-site management of the vast acreage, the Gap will continue to host outdoor recreational opportunities.

Agriculture will continue to utilize and preserve farmland but will also lose lands farmed today that are already zoned for development, and potentially more if rezoning requests are not carefully reviewed. Perhaps the greater risk is the potential loss of farming families who not only made their livelihoods from these lands but were also environmental



stewards of the land. Irritable neighbors who are not familiar with standard farming practices can discourage a farmer’s outlook on the future, even though the farm is protected by law from nuisance complaints. Other farm types may be more compatible with these neighbors, e.g. gentleman farming and horse pasturing. Yet this shift away from livestock and crop production would likely have a ripple effect on agri-businesses, suppliers and equipment dealers that would need to re-invent themselves to serve new or other more profitable markets. In terms of environmental protection, the expansion of farmland preservation efforts, particularly in the karst limestone valley, could be viewed as an open space and water resource protection tool, if environmental regulation is reasonable.

Sustaining the forested mountains and the wood products industry may also face significant challenges. Development that replaces forest with homes and other buildings, and their associated landscapes and lighting, impacts the natural environmental that produces the high quality local timber. Businesses that process timber into construction quality lumber, interior paneling and trim, furniture, and other products will need to travel farther to reach quality timber stands; wood products may be “made in” but not as commonly “home grown” in Lebanon County.

The Gap, the agricultural industry and the forest products industry are the visually apparent economic components of the county's economy. While there are many others, Lebanon County does not have a recognizable economic "identity." While the City of Lebanon was once the hub of employment and economic activity, the economic center has become fragmented to other nearby urban regions, and even to the global market. And while the county is known for producing and processing bologna, chickens and other food products, the industry is not the county's defining industry. In order to distinguish itself from these competing regions, the county will need to identify their role in the new 21st century economy, through strategic product, service, and supply chain improvements as well as workforce development efforts.

Challenge

- Determining economic identity while maintaining diversity

Opportunity

- Empowering employers and prospects with ready workers

In the next 10-15 years, small business and entrepreneurs will continue to be challenged to tap the technical assistance and capital they need for business development. The availability of venture capital and financing options for new businesses is somewhat limited in the county. Yet these funding sources are a critical element in the county's economy, as private markets have the greatest flexibility for new business and expansions. Bringing assistance to these individuals and small companies will help them access information and compete successfully for grants, loans, and other resources. Continued utilization of grant and technical assistance programs made available through Pennsylvania's Economic Stimulus Package can help to generate new capital through public/private investments and address supporting needs such as improvements to infrastructure and housing.

On the employment side of the economy, the gaps between the available skills of the workforce and the available jobs in the county and surrounding region and the kinds of industries the county would like to attract are likely to narrow. Efforts to coordinate and tailor workforce development programming to train, and when necessary re-train, workers exist but in terms of projecting future employment growth and tailoring workforce programs to meet these future needs, economic and educational partners need to take a longer view, particularly if young individuals and families are to be encouraged to stay in the county.

Maintenance and Efficiency in Travel and Transportation

Transportation planning will continue to focus transportation investments on maintenance of the transportation system. The LEBCO MPO's programming priorities for county, state and federal funds will make the highway system safer and more efficient without adding new through corridors. As the MPO strengthens its relationships with municipalities and the private sector, it will help to bring projects to design and construction faster, improving internal circulation and traffic flow within the county, namely along corridors such as Routes 322, 422 and 72. For example, implementation of the recent Route 422 Congested Corridor Improvement Program (CCIP) study recommendations should improve corridor efficiency, while the addition of *CORRIDORtwo* passenger rail service in the future is projected to provide additional relief on the county east-west roads, assuming commuters

Challenge

- Balancing demand and improving the network

Opportunity

- Increasing real travel and transportation options

find regional rail a convenient and affordable option. Additionally, the MPO's work with COLT to develop a business plan is expected to improve ridership and fleet efficiency and revise routing to better serve employee, employer and resident needs.

Dealing with Environmental Standards and Guidance

Man-made development changes and impacts natural resources far faster than they change themselves. Environmental regulations have evolved in recognition of this fact and will continue to expand at all levels of government in the foreseeable future. The Federal Emergency Management Agency (FEMA) is completing a nationwide Map Modernization Project to bring its floodplain data into a geographic information system-compatible format. This will enable better data sharing and comparison with local agencies and bring an opportunity for more consistent delineation and protection of floodplain areas. As the executive extension of the US EPA, PA DEP will continue to monitor land, water and air quality and enforce protection regulations in the interest of healthy citizens and communities. With recent focus on water resources and increasing development and impervious surfaces in the county, PA DEP will likely direct additional attention to ratings for aquatic habitat and water quality impairment. Locally, water resource, watershed and related land use planning will likely expand based on public interest and hot topics but may lag in areas where a poor public understanding of these resources hinders public support.

Challenge

- Managing reasonable use of and impacts to the environment

Opportunity

- Evaluating and using new data in decision-making

Continuous Planning for Healthy Communities

Local comprehensive and land use planning will be revised and updated, particularly in the rapidly growing townships. Updates in the first few years will likely take advantage of the information in the county's comprehensive plan, but critical long range thinking and innovative planning and implementation are needed; continued use of conventional practices will result in more development of conventional quality.



It is unlikely that local officials of communities that are already developed or nearly built out will see the need for a renewed commitment to ongoing planning. Many local leaders fail to see that community development is not "once and done" but an ongoing leadership activity to steward the many live, work and play aspects of community life—homes, business, education, public utilities and services, recreation and leisure activities. Lebanon County, and any region for that matter, must take decisive action to sustain the value and vibrancy of its communities.

The City of Lebanon, which prepared a new comprehensive plan just a few years ago, is an exception. Perhaps this example will lead to an understanding of planning as a tool for long-term community vitality not just greenfield development. Local planning will continue to rely on the basic planning tools: the comprehensive plan, the subdivision and

land development ordinance, the zoning ordinance, and the conventional development practices of the past 30 years. A few municipalities will explore advanced planning tools to manage the ongoing development of their communities. This is most likely to occur where local officials have developed contacts with officials in other municipalities that have already tried these techniques.

Public utility planning by the City of Lebanon Authority is on the cusp of significant maintenance, upgrade and long-range water supply and sewage treatment investment. This proactive philosophy toward maintenance is not shared countywide. Like land use planning, the maintenance of utilities for operational efficiency seems to lag behind the extension of service to new development. The expansion of services is in fact a sound planning practice, particularly in light of the few areas of the county where soils are suitable for on-lot systems, but maintenance must be addressed regularly. If new water supply sources for existing public and community systems cannot be identified, lack of water supply may become a serious issue for individual property owners and industry.

Challenge

- Renewing commitment to ongoing planning for community vitality

Opportunity

- Stimulating new public and private investment in valued communities

Balancing the Costs and Benefits of Public Services

Quality of life and cost of living are directly tied to the public services provided by local governments. These factors are viewed by residents and prospective residents in relative comparison to adjacent and nearby communities. While local governments strive to provide a wide range of public services, the level or quality of service and cost-effectiveness of public services will continue to vary widely. As the cost of supporting these services through municipal taxes and private donations rises, citizens will likely seek more cost-effective arrangements, including shared, cooperative, and joint services. Basic services will be needed countywide, though additional and higher quality services may be provided based on local citizens' preferences.

Challenge

- Overcoming parochialism in the interest of cost effective services

Opportunity

- Enhance and expand services for maximum benefits with minimal investment

Public recreation is perhaps the mostly likely candidate for the expansion of shared ownership of services, namely recreation programs and facilities. Overall, there has been limited investment in public parks and recreation, especially parks close to home, as the county has grown. With sustained development pressure from multiple fronts, opportunities for land acquisition, particularly in planned development areas, are fewer and more costly. Citizens are and will continue to overwhelm existing facilities, increasing the cost of sound maintenance, and asking for more parks, fields, and trails, knowing the benefits of recreation to individual and community health. As a result of interviews, school districts have taken an interest in



partnering on the planning, development and programming of recreation, providing an opportunity for parks and recreation improvement.

Connections to the Past for Present and Future Generations

As the county continues to develop and redevelop itself, it will need to direct focused efforts to retain significant features that communicate its rich history. Buildings that are important to the identity of the county and its communities will deteriorate in significance if not used and in physical condition if not maintained. Not all buildings will be re-used or can be preserved. Some will be replaced with new development, perhaps with a similar style or detailing documented in a pattern book of Lebanon County. Decisions to re-use or remove historic resources will need to be made with a sensitivity for their connection to the history and heritage they represent, as well as to practicality.

Challenge

- Preserving what matters most

Opportunity

- Re-use and re-interpret the value of historic buildings and landscapes

The Cost of Energy for Community Life

The cost of energy and fuel for developing and sustaining individual and community life may have a greater impact on future development patterns and rates than any policy or recommendation of the plan. If the cost of fuel for heating, household utilities, and transportation continue to rise, it will be reflected in increased cost of living and reduced discretionary income for households. Higher fuel costs could also impact business and industry in the costs of shipping and the ultimate cost of products and services delivered to the market. If biofuels production is marketable in Lebanon County, its expansion could transform the appearance and operation of agricultural and wood products industries.

Challenge

- Balancing costs with lifestyle

Opportunity

- New business using renewable natural resources

In Conclusion

In light of the rate, character and quality of development, projected population growth, changing environmental regulations, etc., a more aggressive and coordinated approach is needed to address the anticipated changes in the future ahead. Growth, as change over time, can be good, if it contributes to the quality of life – the economy, environment, services and culture – that residents desire. Planning in Pennsylvania at the outset of the 21st century has been infused with new energy. Amendments to the Municipalities Planning Code (MPC) in 2000 gave new tools, authority and responsibility to local and county governments. More effective communication and coordination between state agencies is developing. New investment and revitalization programs, resulting in part from the Governor’s Stimulus Package, provide new tools and financial resources to both the public and private sectors. The Lebanon County Comprehensive Plan takes advantage of these tools in advancing a vision for the managed growth and conservation of the county as a whole.

4

Goals & Interrelationships

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Without a clear, defined vision of what a community wants to achieve, there is only a low probability that the community will achieve the desired results. Defining the fundamental principles for future community development and resource conservation, acknowledging the interrelationships among the various planning elements, and establishing specific goals for each planning element are essential to characterizing the county's desires and intentions for the future.

Principles for Growth and Resource Conservation

Residents of Lebanon choose to live here for a variety of reasons. Some are attracted to the county's rural character. Others find employment opportunities in the county and surrounding areas. Still others find quality and value in the public services offered here. And many choose to live close to family and friends they have known for a lifetime. Whatever the reason, their choice to live in Lebanon County is based on their values and beliefs in a quality community.

Development of the Lebanon County Comprehensive Plan has highlighted a number of important community values. These guiding principles have much in common with "smart growth" initiatives and state reinvestment strategy, but contain locally significant priorities and guidelines.

Growth and resource conservation within Lebanon County should be guided by the following:

- 1. Encourage distinctive, attractive communities with a strong sense of place.**
 - a. Direct development toward existing communities and utilities to strengthen and revitalize them.
 - b. Encourage the appropriate redevelopment of existing vacant, blighted or underutilized sites.
 - c. Discourage zoning that encourages sprawl.
 - d. Coordinate land use, utility and transportation planning to make development and redevelopment attractive to developers and sustainable by local government.

- 2. Plan for economic growth and development that expands employment, sustains businesses and provides family-sustaining jobs.**
 - a. Enhance the stability of the local economy through business retention, expansion and diversification efforts.
 - b. Prepare "shovel-ready" sites for target industries.
 - c. Provide an educated, trained workforce sufficient to maintain economic prosperity and meet modern technological demands.
 - d. Implement multifaceted strategies to enhance the agricultural and forestry industries through land protection, workforce training, and sustainable production and harvesting practices.

- 3. Protect the natural and cultural landscape that defines our local identity as Lebanon County.**
 - a. Acknowledge, enhance and protect the open space, farmland, scenic views, historic resources and critical environmental areas that are important to the county. Facilitate acquisition or preservation of key sites.
 - b. Link these resources with existing communities through open space planning, conservation greenways, and recreational paths and trails, where appropriate.
 - c. Enhance this green infrastructure by conserving and managing vegetation in greenways and woodlots; by establishing street trees in developments; and by restoring vegetation along stream banks.
 - d. Encourage the continued use of historic building patterns and designs with modern materials. Promote an understanding of these resources among citizens.
 - e. Protect threatened natural features and implement appropriate restoration for damaged resources, with emphasis on water resources.
 - f. Enhance and restore the interconnections of natural systems to sustain them.
 - g. Coordinate conservation and preservation activities on a resource scale, by watershed, mountain range or other holistic approaches.

- 4. Encourage compact building and development designs.**
 - a. Mix compatible land uses, especially within larger developments or revitalization projects, to reduce vehicular travel and encourage walkable business and residential neighborhoods.
 - b. Promote energy efficient site design to reduce energy consumption for heating and cooling.
 - c. Promote the use and production of alternative energy sources.

- 5. Broaden the range of housing opportunities and choices.**
 - a. Encourage sound maintenance and modernization of existing housing units, as well as the utility infrastructure that serves them.
 - b. Increase the range of housing types in new housing construction.
 - c. Encourage development that provides housing, business and employment opportunities close to one another.

- 6. Provide transportation choices for residents, businesses and visitors.**
 - a. Maintain a safe, efficient, interconnected and accessible transportation system.
 - b. Enhance and expand the variety of travel modes in existing and future development, with particular emphasis on energy efficiency.
 - c. Target transportation investment for maximum local and regional benefit.
 - d. Maintain and improve the existing transportation system first; focus on affordable operational improvements second.
 - e. Encourage local and private financial support to help expedite transportation project delivery.

7. **Provide adequate, cost effective public services to meet the needs of the community.**
 - a. Expand recreation programs and services for all ages.
 - b. Increase local parkland and interconnect parks with trails.
 - c. Maintain and expand services to protect human health, safety and welfare.
 - d. Share service contracts, where cost effective.

8. **Think, communicate, and plan regionally; implement locally.**
 - a. Share knowledge and strive for effective public communication.
 - b. Encourage continuous dialogue among municipalities, government agencies and school districts regarding community growth and resource conservation.
 - c. Encourage community and stakeholder communication and collaborative decision-making.
 - d. Develop partnerships among public and private sectors—public-public, public-private, and private-private—to make community planning and associated projects affordable.

Interrelationships

Community development and resource conservation can be complex topics, particularly since policy, planning and management may be handled by unique offices, agencies and even individuals. Bearing the interrelationships among planning elements in mind acknowledges that decisions made in one element or topic area may impact or influence conditions throughout the community. The interrelationships among comprehensive plan elements were emphasized by the amendments made to the Pennsylvania Municipalities Planning Code in 2000 and are particularly important in county planning.

MPC Requirement: *A statement of the interrelationships among the various plan components, which may include an estimate of the environmental, energy conservation, fiscal, economic development and social consequences on the municipality*

MPC Article III, Section 301(a)(4.1)

Extensive discussion of interrelationships is presented in each plan chapter, e.g., relating the principles of land use to transportation, housing, natural resource protection, etc. A few examples of these interrelationships include:

1. Land use and recreation interrelate through active and passive parks as well as resource based recreation in natural resource areas.
2. Transportation and land use interrelate spatially in corridors. The land use policy establishes the origins and destinations of travel and the transportation facility provides the travel mode. Where the land use is designated as commercial or industrial, economic development is also interrelated.

3. Historic resources and economic development interrelate through heritage tourism, the preservation, management and promotion of historic resources as a niche industry within the tourism sector. The same is true of natural resources, since outdoor recreation is another tourism niche.

The interrelationships section of each plan is presented immediate before the action plan.

Summary of Goals

With an understanding of the fundamental principles for community development and resource conservation and the interrelationships among them, goals for each plan element were prepared. These goals provide the framework for areas of special focus, the objectives, and specific actions to be take by the county and its partners. The following is a summary list of the goals found in each plan chapter.

MPC Requirement: *A statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development,*

MPC Article III, Section 301(a)(1)

Land Use Goals

1. Provide exemplary leadership in community planning and development.
2. Direct the majority of new development toward existing communities and utilities.
3. Conserve land needed for rural industries and land patterns indicative of rural character.
4. Protect sensitive environmental resources from the direct and indirect impacts of development.
5. Develop and expand cooperation and communication among public and private partners.

Transportation Goals

1. Provide a safe and secure transportation system.
2. Provide a multi-modal system that is efficient, interconnected and accessible.
3. Promote a sustainable transportation system that complements the county's natural and built environment.
4. Meet the challenges and opportunities of growth through collaborative planning, funding and project implementation.
5. Target investments for maximum local and regional benefit and impact.

Community Facilities and Utilities Goals

1. Provide access to educational services and support programs for cultural enrichment.
2. Provide public safety services that meet local needs and reflect national and statewide standards.

3. Encourage the planning and development of a modern, secure health care system.
4. Provide an adequate solid waste collection and disposal system.
5. Ensure a clean, adequate water supply and sewage disposal systems.
6. Facilitate private utilities planning in support of planned growth.
7. Provide adequate facilities for county and local government administration and affiliated service agencies.

Economic Development Goals

1. Retain and expand existing businesses and attracts new businesses that enhance the overall quality of life of county residents by meeting all or most of the following characteristics:
 - Pose minimal to no environmental degradation
 - Provide stable jobs
 - Offer job compensation (wages & benefits) that is family-sustaining
 - Are net contributors to the tax base
 - Pose minimal to no impact on the transportation system (after any associated improvements)
 - Are located in central business districts or within walkable distance of existing or planned neighborhoods or accessible by public transportation and/or are located on underutilized properties or brownfields/greyfields where infrastructure investment has already been made
 - Adhere to high quality design and construction standards that are compatible with surrounding areas.

Natural Resources Goals

1. Maintain and enhance the quantity and quality of water resources.
2. Protect and preserve Lebanon County's diverse ecologically sensitive areas.
3. Protect prime farmland, sustain the agricultural economy, and promote the rural heritage of Lebanon County.
4. Encourage a healthy balance between the economic benefits of forestry and mineral extraction and the sustainability of the operation and associated effects on the natural environment.
5. Maintain EPA's attainment status for air quality in Lebanon County.

Greenscapes Goals

1. Establish a countywide system of parks and recreation areas comprised of state, county, regional, municipal, and private lands for present and future resident recreation.
2. Develop a countywide network of greenways and trails to create a connected county.
3. Facilitate and promote a wide range of recreation opportunities to people of all ages who live in, work in, and visit Lebanon County.

4. Plan and manage parks, recreation and open space in Lebanon County through partnerships, collaboration for the greatest public benefit and responsible uses of recreation resources.
5. Invest in parks and recreation to enhance the health, safety, and welfare of the citizens and to contribute to the economic vitality of Lebanon County.

Historic Resources Goals

1. Safeguard and promote historical resources and the heritage of Lebanon County.

Housing Goals

1. Provide a wide range of housing types and affordability throughout the county at appropriate densities based on identified growth areas, access to health and human resources, shopping, employment opportunities, utilities, transportation systems, public transit, and walkability.
2. In conjunction with growth management, target at least 80% of new growth to areas served by public infrastructure:
 - 25% of this growth will be targeted to the downtown areas principally located in the City of Lebanon, the boroughs and first class townships, and
 - 55% will be accommodated in suburban or village areas with existing or planned public infrastructure.

No more than 20% of new residential growth will be accommodated in areas of the county which are not currently serviced by infrastructure or have no new infrastructure development currently planned.

Energy Conservation Goals

1. Promote energy efficiency and conservation throughout the community development and community revitalization processes.

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Land Use Plan

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The Land Use Plan for Lebanon County is comprised of recommendations and the future land use map. The Land Use Plan emphasizes land use planning that accommodates projected community and economic growth, directs growth to areas of existing or planned infrastructure, and protects sensitive resources from development and its impacts. The core purpose of the Land Use Plan is to manage the amount, intensity, character and timing of development.



The Land Use Plan is presented in four major sections. The first section highlights findings from the *Land Use Profile, Background Study #9* in Appendix I. The second section presents the growth management strategy, including the Future Land Use Map. The third section states the interrelationships of the land use element to other elements of the comprehensive plan. The fourth and final section presents the Land Use Action Plan.

MPC Requirement: *A plan for land use, which may include provisions for the amount, intensity, character and timing of land use proposed for residence, industry, business, agriculture, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains, and other areas of special hazards and other similar uses.*

MPC Article III, Section 301(A)(2)

Overview of Findings from the Land Use Profile

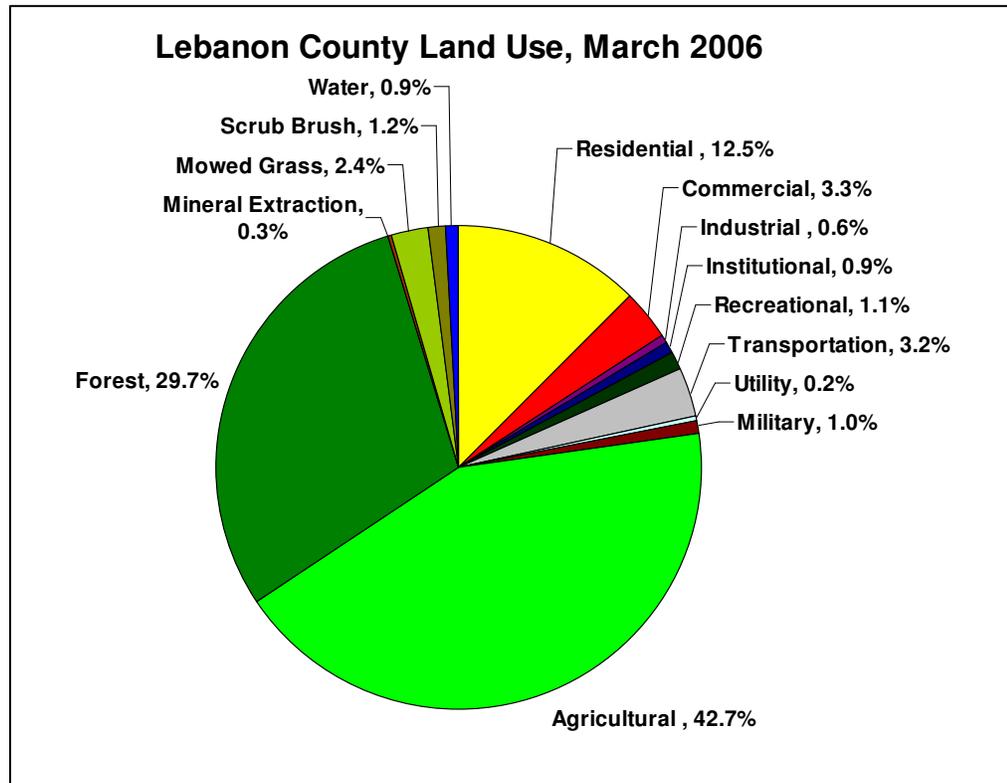
2006 Land Use Inventory

- Lebanon County's land use pattern reflects an open space landscape interspersed with concentrated, intensively developed communities and low density development. The Lebanon Valley is predominantly an agricultural landscape and the northern and southern mountains are predominantly forested; agricultural and forest lands together account for 169,537 acres or approximately 72.4% of the county's total land area. Low density suburban development surrounds concentrated, intensively developed communities as major subdivisions and extends along major transportation corridors. The highest density development is concentrated along Route 422 and in outlying boroughs and villages.
- Of the residential land total, approximately 5,935 acres or 20.2% are high density residential, 22,720 acres or 77.4% are low-density residential, 264 acres or 0.9% are a residential/commercial mix, and 434 acres or 1.5% are seasonal residential lands. In some instances, seasonal properties of such small

size in close proximity to one another have been classified as high density residential.

- Commercial land uses are distributed throughout the county, generally adjacent to residential areas and in downtown centers and occupy 7,738 acres (3.3%) of the county’s land area. The eight golf courses represent several of the largest commercial properties.

Figure 5-1 Land Use/Cover Distribution, March 2006



- The county contains approximately 1,321 acres of industrial land, or 0.6% of the total area. Eighty-four percent (84.1%) of the county’s industrial lands are located along or near Route 422 and the Norfolk Southern rail corridor.
- Institutional lands used by ambulance companies, cemeteries; community centers, fire companies, hospitals, libraries, municipal locations, police, religious facilities, and schools occupy 2,164 acres, or 0.9% of the county’s land area.
- Just over one percent of the county is dedicated to recreation.
- Transportation facilities occupy 7,395 acres or 3.2% of the county’s land area. Transportation lands typically comprise less than one percent of the municipal and school district area.
- Land dedicated to utilities, such as treatment plants, storage tanks, and pump stations, occupies 531 acres, or 0.2% of the county’s total land area.

- Of the 12,336 acres of the Fort Indiantown Gap Military Reservation in Lebanon County, approximately 2,427 acres are considered developed or built military use. The remainder of the reservation consists of public-semi-public land uses, mowed grass, forest, and scrub brush lands that were delineated as separate land uses/covers.
- Agriculture is the predominant land use in Lebanon County, occupying 99,996 acres and 42.7% of the total county land area. This figure represents lands used for agricultural production activities; it does not include homesteads, woodlands, drives and lanes, and other lands used for non-agricultural activities, though they may occur on farm property. As such, this figure is less than the 124,500 acres reported as “land in farms” for Lebanon County in the 2005/2006 Pennsylvania Agricultural Statistics Bulletin.
- Forest lands are the second largest land use in Lebanon County, at 69,541 acres or 29.7%. Forest lands on the northern mountains include state game lands, Memorial Lake and Swatara State Parks, and Fort Indiantown Gap Military Reservation as well as private lands. Forest lands along the southern border state include game lands, part of the Middle Creek Wildlife Management Area, and extensive private forest land.
- The total land area used for mineral extraction in North Annville, South Annville, South Lebanon and North Londonderry Townships is 599 acres.
- Mowed grass and scrub/brush lands, often called transitional areas, make up 3.6% of county lands.
- Open water includes lands covered by water at 2,109 acres or 0.9%

Brownfields

- Lebanon County has seven Keystone Opportunity Zone (KOZ) sites. The Aspens Business Park, East Lehman Street Site, Lincoln Fifth Corporation Sites, and Fourth Street Complex have each applied for the tax benefits of the Keystone Opportunity Zone program. The former Colonial Theater Property, the 841 Jonestown Road Site, and Seventh and Mifflin Street Site have only received the KOZ designation.
- There are five Superfund sites in Lebanon County. The only site on the National Priorities List, the Whitmoyer Laboratories site, has been reclaimed as the Jackson Recreation Park.
- The City of Lebanon is the only municipality actively quantifying and addressing vacant and underutilized sites. As of mid to late 2006, the City’s Vacant Property Review Board had identified six commercial buildings, 19



commercial sites (totaling 67.3 acres), 19 industrial buildings, and 25 industrial sites (totaling 902.3 acres) as available.

Recent Trends in Land Use and Land Development

- In comparison to the findings and projections of the 1987 Lebanon County Interim Plan, agricultural uses have remained viable; residential lands have nearly doubled; together commercial and industrial lands have increased to 4%-5%; institutional lands have declined slightly (most likely due to differences in defining “institutional” lands); and conservation and other lands have declined slightly.
- Regarding new residential construction, the number of units added annually has increased, particularly in recent years. From 2002 through 2004, approximately 900 homes were built each year. A review of 2004 to 2006 zoning permit data for 17 of the 26 municipalities, all of which are handled by the Lebanon County Planning Department, shows that additions to residential structures are almost as significant, in terms of numbers of projects, as new home construction. Less than three percent of new homes built between 1990 and 2004 were replacement homes. Further analysis by the Lebanon County Planning Department revealed that the number of new homes built in areas without public utilities has been decreasing by number and decreasing more substantially as a percentage of the total homes built. Overall, this confirms the increasing success of directing development to public utility areas.
- From 2002 to 2006, there have been 90 major commercial, industrial, and agricultural-related construction projects, totaling nearly \$250 million in construction costs in Lebanon County. Institutional projects, which include projects at Good Samaritan Hospital, several schools, and a number of churches, received more than half of the major project investments from 2002 to 2006.
- Reuse and redevelopment is actively occurring in the county. Reuse and redevelopment of existing sites account for 61 of the 90 major construction projects, and approximately \$181.4 million or 73% of the total construction costs of \$248 million. One of the largest redevelopment projects in the City of Lebanon is the renovation of Lebanon’s Central Market House on 8th Street and several Cumberland Street properties by Lebanon Landmarks. These results indicate that additions,



expansions, and other kinds of reuse of existing properties generally outnumber new construction projects by 2 to 1 for major projects. Furthermore, the number of commercial/industrial and agricultural projects has stayed steady for the 2004-2006 period, according to zoning permits issued by the Lebanon County Planning Department.

Growth Areas and Corridors

- Based on the land use and housing analyses, Lebanon County is experiencing strong development pressure from eastern and western fronts, the I-81/I-78 corridor, and surrounding its urban core.
- Municipalities in the Palmyra Area School District are experiencing residential development pressures from the west. This growth is primarily residential and has occurred, in large part, as a result of service and employment expansions at the Penn State Hershey Medical Center (HMC) and throughout the Harrisburg-Hershey area.
- The eastern portion of the county, predominantly Jackson and Millcreek Townships, is facing development pressure as rural-minded residents from suburban Reading and suburban Philadelphia relocate to the quiet countryside of Lebanon County. This development pressure is also predominantly residential, including institutional and other special residential types for retired and senior adults.
- Although the largest movement to the suburbs occurred in the 1950s and 1960s, many residents still are relocating from Lebanon City to the Cornwall-Lebanon School District. Both residential and commercial development have increased in this region over the past thirty years.
- The Northern Lebanon School District has grown steadily in residential and commercial uses. Because it is the largest school district region, recent development has not had the same visual impact as it has had in other, smaller regions. Continued growth is projected as a direct result of its location along Interstates 78 and 81, as well as Routes 22 and 72, enabling residents to travel to employment opportunities in the capital region and access interstate and highway connections throughout the mid-state and mid-Atlantic regions.



2020 and Build-out Land Use Projection

- The 2020 land use projection anticipates continued growth in intensive, built uses. The availability of commercial and industrial lands in 2006 suggest that there is capacity for development within designated areas; however, some

growth may occur in greenfield areas, particularly as commercial services strive to locate near consumers. Intensive residential, commercial, industrial, and supporting lands will naturally require additional or expanded community services, recreation facilities, transportation improvements and utility extensions. Of the major uses, residential development will likely have the most significant impact on the land use/cover by 2020. Portions of existing agricultural and forest lands are, in fact, zoned for residential development, while other areas allow limited residential development in agricultural and other conservation-oriented districts. The roughly 38,000 acres projected for residential development is more than adequate to accommodate the 19,748 new residents and 14,500 to 15,500 new housing units anticipated by 2020.

- Based on recent trends and development potential specified by current development ordinances, estimated maximum build-out suggests further conversion of nearly 90,000 acres open space lands to intensive development. The build-out potential shows development of all developable land for the use indicated and, in essence, full occupancy of available lands. Residential lands could increase substantially—nearly four-fold. Commercial and industrial lands could increase by only 300 to 600 acres each. Institutional uses, including community, recreation, transportation and utility facilities, could increase by roughly 3,000 acres to serve residents’ needs. Dedicated recreation lands, would increase based on the current mandatory dedication requirements of the ten municipalities that have such provisions, if suitable lands could be dedicated. Preserved farmland would gradually increase and lands in public ownership as well as lands excluded from development or severely limited by the presence of floodplain, steep slopes, or other natural hazards would remain as open space. The implications for this growth would include significant changes in landscape character, the economy and environmental quality.

Status of Land Use and Land Development Regulations

- Fourteen of the 26 municipalities have no municipal comprehensive plan or have plans that are more than 20 years old.
- All of the 26 municipalities in Lebanon County utilize some form of land use and land development regulation. The Lebanon County Subdivision and Land Development Ordinance provides regulatory guidance for 16 of the 26 municipalities. Annville, Bethel, Cornwall, Heidelberg, Jackson, Lebanon City, North Cornwall, South Lebanon, South Londonderry, and Union have their own subdivision and land development ordinances.
- Twenty-five (25) of the 26 municipalities have zoning regulations; 17 utilize the county planning department for zoning enforcement; 8 provide their own enforcement. Cold Spring Township has no governing body and no zoning ordinance.
- The 2003 International Residential Code is administered and enforced by the county in 17 of 26 municipalities. Seven municipalities—Heidelberg, Jackson,

Lebanon City, Mt. Gretna, North Cornwall, South Londonderry and Union—conduct their own building code enforcement programs. Bethel opted out of available building code enforcement services offered by the county and Cold Spring has no governing body nor any development regulations.

- Twenty-three (23) of 26 municipalities utilize the planning department’s sewage enforcement program for planning module administration; Bethel, Mt. Gretna and Union provide their own enforcement.
- Six municipalities have sewage management programs; 3 utilize the county planning department for enforcement services and North Cornwall, South Londonderry and Union Townships provide their own enforcement.
- Twelve of 17 municipalities, where sewer expansion could occur, have sewage facilities plans that identify areas for future service.
- Nine of the 26 municipalities have (or are developing) a municipal or multi-municipal park, recreation and open space plan.
- Ten of 26 municipalities currently have mandatory dedication of parkland provisions. Additional mandatory dedication of parkland provisions would increase recreational land conservation across the county.
- There is only one municipality, South Londonderry Township, with local environmental advisors to local officials, i.e., Environmental Advisory Councils (EACs).
- There are a growing number of municipalities across Pennsylvania that are using innovative planning and zoning techniques to better guide growth toward their preferred visions for their communities. Model ordinances and best practices are increasingly available. The county and its municipalities have little experience envisioning and guiding the development of innovative (nonconventional) development, e.g., mixed use, cluster, and conservation zoning and subdivision techniques.

Agricultural Land Preservation

- More than 57,000 acres are enrolled in Agricultural Security Areas in 16 municipalities. Agricultural Security Area enrollment is a required stepping stone toward the county’s Agricultural Land Preservation Program.
- The county passed a milestone mark of 10,000 acres of preserved farmland in June 2006; in late 2007, total preserved farmland approached 13,000 acres. Seventeen of 26 municipalities contain land preserved for agriculture. South



Annville, South Lebanon, North Lebanon and Millcreek Townships each have more than 1,000 acres preserved.

- The Clean and Green Program is not used in Lebanon County due to the relative value of current (1968) assessments to current use and market values.

Pennsylvania Land Use Incentives

- Pennsylvania’s Economic Stimulus Package makes 19 grant and technical assistance programs available to Pennsylvania communities to generate new capital through public/private investments, create more jobs, and improve infrastructure and housing. Eight (8) programs were identified as applicable for Lebanon County and its municipalities.

Lebanon County’s Growth Management Strategy

Planned and well-managed growth, “smart growth,” is the focus of the entire comprehensive plan. Smart growth for Lebanon County is growth that contributes to the vitality of existing communities, the economy, and the environment. The Lebanon County Principles for Growth and Resource Conservation, outlined in Chapter 4, establish the expectations for future development in the county. These expectations shape the vision, goals and objectives of each element of the comprehensive plan; their respective action plans outline the changes needed to make these expectations achievable and probable, rather than occasional successes. The Land Use Policy Map relates these priorities to one another and to planned locations for growth and conservation.

Land Use Policy Map

The Land Use Policy Map, or future land use map, designates growth and open space areas as the primary organization for land use policy. Growth and open space areas are further subdivided into eight land use classes.

Growth Areas, where the majority of development is to be guided, are designated for 21% of the county and include five land use classes:

- Downtown Business
- Downtown Neighborhoods
- Suburban Business
- Suburban Neighborhoods
- Village Neighborhoods

Open Space Areas, where the remaining development is to be accommodated, are designated for 74% of the county and include three land use classes:

- Agricultural Areas
- Rural Resource Production Areas
- Natural Areas

The Federal Area, Fort Indiantown Gap, is designated for 5% of the county and has its own land use class, Military Land. The municipal and school district distribution of growth areas, open space areas, and military land is shown in Table 5-1.

These land use classes provide the basic parameters for zoning policy. Though they align closely with municipal zoning district boundaries, they do not constitute zoning districts, as the comprehensive plan is limited to policy recommendations and cannot itself change zoning policy. The description and location of these land use classes are the first step toward a revised land use policy and management approach that will result in desired land use patterns and densities.

The description of each land use class outlines compatible uses as primary or secondary. This recommendation does not exclude other uses that a local municipality may wish to include, rather it is intended to suggest which uses should comprise the preferred majority of uses in each category, i.e., permitted uses, and which may comprise a minority of uses, i.e., conditional uses or special exceptions. When referring to residential densities, the following general scale applies:

- Low Density: less than 4 dwelling units per acre
- Medium Density: 4-8 dwelling units acre
- High Density: 8 or more dwelling units per acre

The description of each land use class also recommends infrastructure as served by public or on-lot systems, natural and historic resource priorities and site and neighborhood/district design features compatible with the desired outcome and footprint of any future development.

These land use classes are not new to Lebanon County. For each class, at least one reference location is given to aid in visualizing the appearance and function based on familiar neighborhoods, districts or landscapes. Additional designations identify locations in the county where the class should be applied.

While these classes are familiar to Lebanon County, conventional development techniques of the past 30 years have not yielded such a wide range of patterns and densities. Therefore, recommended land use practices and tools are also provided for each land use class. These practices and tools are described in the Growth Management Strategies White Paper in Appendix II.

Table 5-1 Distribution of Primary Land Use Designations as shown on the Land Use Policy Map

	Growth Areas		Open Space Area		Military Land	
	Acres	%	Acres	%	Acres	%
Lebanon County	49,210	21.0%	172,900	73.7%	12,336	5.3%
Annvile-Cleona SD	3,444	13.7%	21,649	86.3%	0	0%
Annvile	998	95.9%	43	4.1%		
Cleona	321	59.5%	219	40.5%		
North Annville	697	6.3%	10,361	93.7%		
South Annville	1,429	11.5%	11,026	88.5%		
Cornwall-Lebanon SD	15,521	36.4%	27,113	63.6%	0	0%
Cornwall	3,018	48.3%	3,232	51.7%		
Mount Gretna	92	100.0%	0	0.0%		
North Cornwall	2,425	39.9%	3,650	60.1%		
North Lebanon	5,169	48.3%	5,537	51.7%		
South Lebanon	3,680	26.3%	10,322	73.7%		
West Cornwall	1,138	20.7%	4,372	79.3%		
ELCO SD	8,243	18.1%	37,176	81.9%	0	0%
Heidelberg	973	6.3%	14,468	93.7%		
Jackson	4,292	27.8%	11,134	72.2%		
Millcreek	1,604	12.2%	11,514	87.8%		
Myerstown	488	89.0%	60	11.0%		
Richland	887	100.0%	0	0.0%		
Lebanon SD	2,920	100.0%	0	0.0%	0	0%
Lebanon City	2,667	100.0%	0	0.0%		
West Lebanon	253	100.0%	0	0.0%		
Northern Lebanon SD	9,894	10.4%	72,501	76.5%	12,336	13.0%
Bethel	4,115	18.5%	18,154	81.5%	0	0%
Cold Spring	0	0.0%	17,616	97.0%	544	3.0%
East Hanover	1,305	6.2%	14,068	67.3%	5,533	26.5%
Jonestown	288	71.7%	113	28.3%	0	0%
Swatara	2,220	16.0%	11,676	84.0%	0	0%
Union	1,967	10.3%	10,874	56.9%	6,259	32.8%
Palmyra Area SD	9,188	38.9%	14,460	61.1%	0	0%
North Londonderry	5,902	85.8%	974	14.2%		
Palmyra	1,235	100.0%	0	0.0%		
South Londonderry	2,050	13.2%	13,486	86.8%		

Source: Gannett Fleming, Inc.

Note: Municipal, school district and county sums may not total due to rounding.

Growth Areas

Downtown Business



Purpose:	Accommodate a variety of moderately intensive, small to mid-sized developments integrating residential, commercial, office, institutional, and recreation uses
Primary Uses:	Small to medium scale retail and office, institutional (educational, health care and local government), medium and high density housing
Secondary Uses:	Low density residential, recreation (mini parks and walking trails)
Water & Sewer Service:	Public Water and Public Sewer
Transportation System:	Streets, transit routes and stops (bus and/or rail), sidewalks/crosswalks, on-road bike lanes, off-road trails, wayfinding signage
Natural Resource Priorities:	Greenways, urban forestry, riparian and wetland buffers, wellhead protection
Historic Resource Priorities:	Adaptive reuse of historic structures and sites, conserved building facades, continued use of historic design features in new, infill, or re-development, historic district designations
Design Characteristics:	Mixed-uses within the designation area and within individual sites/structures; "build-to" lines; streetscapes and plazas: sidewalks, signage standards, street trees, benches, lighting, landscaped buffers, on-street and off-street parking (side, rear, structured parking); architectural design guidelines
Land Use Practices & Tools:	Infill/Redevelopment, Traditional Neighborhood Development (TND), Transfer of Development Rights (receiving zone)
Reference Pattern of Development:	Downtown Lebanon and most borough centers in the county; downtown of Annville Township
Additional Designations:	See Land Use Map

Downtown Neighborhoods



Purpose:	Sustain the existing urban neighborhoods; maximize compatible infill and redevelopment
Primary Uses:	Medium and high density residential, neighborhood/small-scale commercial, and institutional (educational, health care and local government)
Secondary Uses:	Low density residential, recreation (mini and neighborhood parks, trails)
Water & Sewer Service:	Public Water and Public Sewer
Transportation System:	Streets, transit routes and stops (bus and/or rail), sidewalks/crosswalks, on-road bike lanes, off-road trails
Natural Resource Priorities:	Greenways, urban forestry, riparian and wetland buffers, wellhead protection
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), conserved building facades/exteriors, continued use of historic design features in new, infill, or re-development, historic district designations
Design Characteristics:	Mixed-uses within the designation area and within individual sites/structures; "build-to" lines; streetscapes: sidewalks, street trees, benches, lighting, on-street and off-street parking (side, rear, structured parking); architectural design guidelines
Land Use Practices & Tools:	Infill/Redevelopment, Traditional Neighborhood Development (TND), Transit Oriented Development (TOD), Transfer of Development Rights (receiving zone)
Reference Pattern of Development:	Residential neighborhoods of the City of Lebanon, the boroughs in the county and Annville and West Lebanon Townships
Additional Designations:	See Land Use Map

Suburban Business



Purpose:	Sustain the existing suburban business centers; enhance their physical connection to adjacent downtown and suburban neighborhoods
Primary Uses:	Commercial retail, commercial office, light industrial/warehousing, institutional (educational, health care and local government)
Secondary Uses:	Recreation (trails), regional commercial, heavy industry (manufacturing), medium and high density residential
Water & Sewer Service:	Public Water and Public Sewer
Transportation System:	Streets, transit routes and stops (bus and/or rail), rail freight, sidewalks/crosswalks or pedestrian/bicycle paths, on-road bike lanes, off-road trails
Natural Resource Priorities:	Open space conservation/greenways, riparian and wetland buffers, minimal impervious cover and maximum infiltration, wellhead protection, natural heritage site buffers and management
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), use of historic design features in new, infill, or re-development
Design Characteristics:	Mixed-uses within the designation area and within individual sites/structures; streetscapes: walking path/sidewalk, signage standards, street trees, landscaped buffers; architectural design guidelines
Land Use Practices & Tools:	Infill/Redevelopment, Cluster Development, Conservation Design, Transit Oriented Development (TOD), Low Impact Development, Transfer of Development Rights (receiving zone)
Reference Pattern of Development:	Tuck Business Park, Lebanon Valley Business Park, Aspens Business Park, Lebanon Rails Business Park
Additional Designations:	Industrial and business parks, interchange areas; see Land Use Map

Suburban Neighborhood



Purpose:	Sustain the vitality of existing suburban neighborhoods; encourage new uses that are compatible with the existing patterns; and provide additional locations to accommodate new residences
Primary Uses:	Medium and low density residential, including single and multi-family units
Secondary Uses:	Recreation (neighborhood and community parks), neighborhood/small-scale commercial, institutional (educational, health care and local government)
Water & Sewer Service:	Public Water and Public Sewer
Transportation System:	Streets, transit routes and stops (bus), sidewalks/crosswalks or pedestrian/bicycle paths, on-road bicycle lanes, off-road trails
Natural Resource Priorities:	Open space conservation/greenways, riparian and wetland buffers, minimal impervious cover and maximum infiltration, wellhead protection, natural heritage site buffers and management
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), use of historic design features in new, infill, or re-development
Design Characteristics:	Mixed-uses within the designation area and within individual sites/structures; streetscapes: walking path/sidewalk, signage standards, street trees, landscaped buffers; architectural design guidelines
Land Use Practices & Tools:	Infill/Redevelopment, Planned Residential Development (PRD), Transit Oriented Development (TOD), Low Impact development, Conservation Design, Transfer of Development Rights (receiving zone)
Reference Pattern of Development:	Creekside (North Cornwall), Wheatland Manor (Jackson), North Ridge Estates (North Annville), Country Squire Estates (South Londonderry), Colonial Village (Union), Mountain Stream Village (Bethel)
Additional Designations:	See Land Use Map

Village Neighborhood



Purpose:	Recognize the importance of the county’s existing villages; protect and enhance historic architectural and development patterns; encourage new uses that are compatible with the existing development patterns; and provide locations to accommodate new residences and compatible neighborhood uses
Primary Uses:	Medium to low density residential, small-scale commercial, and institutional (educational, health care and local government)
Secondary Uses:	Recreation (mini and neighborhood parks, trails), light industrial, high density residential
Water & Sewer Service:	Public Water and Public Sewer (preferred); community system or managed on-lot systems (alternatives)
Transportation System:	Streets/roads, transit routes and stops (bus), sidewalks/crosswalks or pedestrian/bicycle paths, off-road trails
Natural Resource Priorities:	Greenways, urban forestry, riparian and wetland buffers, minimal impervious cover and maximum infiltration, wellhead protection, natural heritage site buffers and management
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), use of historic design features in new, infill, or re-development, historic district designations
Design Characteristics:	Mixed-uses within the designation area and within individual sites; “build-to” lines; streetscapes and public greens: sidewalks, signage standards, street trees, benches, lighting, landscaped buffers; on-street and off-street parking (side or rear parking); architectural design guidelines
Land Use Practices & Tools:	Infill/Redevelopment, Transfer of Development Rights (receiving zone)
Reference Pattern of Development:	Campbelltown, Fredericksburg, Kleinfeltersville, Lawn, Newmanstown, Quentin, Ono, Schaefferstown
Additional Designations:	See Land Use Map

Table 5-2 Distribution of Growth Area Land Use Classes as shown on the Land Use Policy Map

	Downtown Business (acres)	Downtown Neighbrhd (acres)	Suburban Business (acres)	Suburban Neighbrhd (acres)	Village (acres)	Total Growth Areas (acres)
Lebanon County	1,529	4,890	11,287	27,084	4,421	49,210
Percent	0.7%	2.1%	4.8%	11.6%	1.9%	21.0%
Annville-Cleona SD	92	937	962	1,437	16	3,444
Annville	20	688	290			998
Cleona	72	249				321
N. Annville			53	644		697
S. Annville			619	793	16	1,429
Cornwall-Lebanon SD	122	456	3,177	10,528	1,238	15,521
Cornwall			295	1,925	798	3,018
Mt. Gretna					92	92
N. Cornwall		273	502	1,651		2,425
N. Lebanon			1,329	3,840		5,169
S. Lebanon	122	184	888	2,486		3,680
W. Cornwall			163	626	349	1,138
ELCO SD	122	971	3,148	3,357	645	8,243
Heidelberg			164	303	505	973
Jackson		557	1,871	1,864		4,292
Millcreek	36		851	577	140	1,604
Myerstown	63	313	112			488
Richland	23	101	149	613		887
Lebanon SD	1,129	1,308	101	382	0	2,920
Lebanon City	1,086	1,199		382		2,667
W. Lebanon	43	108	101			253
Northern Lebanon SD	38	265	2,646	4,672	2,273	9,894
Bethel	15		970	2,912	218	4,115
Cold Spring						0
East Hanover			174		1,131	1,305
Jonestown	22	265				288
Swatara			139	1,582	499	2,220
Union			1,365	177	425	1,967
Palmyra Area SD	25	953	1,253	6,707	249	9,188
N. Londonderry			449	5,453		5,902
Palmyra	25	953	257			1,235
S. Londonderry			547	1,255	249	2,050

Source: Gannett Fleming, Inc.

Note: Municipal, school district and county sums may not total due to rounding.

Open Space Areas

Agricultural Areas



Purpose:	Protect the viability of the county’s agricultural industry, including crop and livestock farming
Primary Uses:	Crop production, animal husbandry (confined feeding operations, concentrated animal feeding operations), food and fiber processing operations, agricultural supply businesses and related businesses
Secondary Uses:	Limited low density residential, limited recreation (trails), low impact, home- and farm-based businesses
Water & Sewer Service:	On-lot systems
Transportation System:	Roads, on-road and off-road pedestrian/bicycle paths/trails, airfields
Natural Resource Priorities:	Greenways, riparian and wetland buffers, woodland/forest management, wellhead protection, natural heritage site buffers and management
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), historic landscape designations
Design Characteristics:	Buffer intensive uses to reduce conflicts
Land Use Practices & Tools:	Effective agricultural zoning (that limits uses to those compatible with agriculture, minimizes conflicts of existing uses, and manages development potential and impact, e.g., via sliding scale techniques and development placement standards), Agricultural Land Preservation Program, Agricultural Security Area Program, Transfer of Development Rights (sending zone)
Reference Pattern of Development:	Agricultural valley across southern Lebanon County and agricultural uplands across northern Lebanon County
Additional Designations:	See Land Use Map

Rural Resource Areas



Purpose:	Support the viability of the county’s forestry, mining, and other natural resource-based businesses
Primary Uses:	Forestry, mining, and related businesses
Secondary Uses:	Agriculture, limited low density residential, limited recreation (nature preserve, trails), low impact, home-based businesses
Water & Sewer Service:	On-lot systems
Transportation System:	Limited roads (public and emergency access), on-road and off-road pedestrian/bicycle trails
Natural Resource Priorities:	Riparian and wetland buffers, woodland/forest management, wellhead protection, land reclamation, natural heritage site buffers and management
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), conserved building facades/exteriors
Design Characteristics:	Buffer intensive uses to reduce conflicts
Land Use Practices & Tools:	Transfer of Development Rights (sending zone), Conservation Design
Reference Pattern of Development:	Private forested lands of Blue and South Mountains
Additional Designations:	See Land Use Map

Natural Areas



Purpose:	Protect, and where feasible, restore, the county’s most sensitive natural resources from the direct and indirect impacts of development
Primary Uses:	Resource management areas for land and water bodies
Secondary Uses:	Limited public recreation (hunting, fishing, hiking, camping, environmental education), limited residential
Water & Sewer Service:	On-lot systems
Transportation System:	Limited roads (public and emergency access), on-road and off-road pedestrian/bicycle trails, stream access
Natural Resource Priorities:	Riparian and wetland buffers, wellhead protection
Historic Resource Priorities:	Adaptive reuse of historic structures and sites (limited to specified uses), historic landscape designations
Design Characteristics:	Buffer intensive uses with less intensive uses to reduce conflicts with adjacent land use designations
Land Use Practices & Tools:	Conservation Easements, Floodplain ordinance provisions, Riparian buffer ordinance provisions, Transfer of Development Rights (sending zone)
Reference Pattern of Development:	Middle Creek Waterfowl Area, State Parks and Game Lands
Additional Designations:	Floodplains, steep slopes, Natural Areas Inventory sites, local nature parks/natural areas; see Land Use Map

Table 5-3 Distribution of Open Space Land Use Classes as shown on the Land Use Policy Map

	Agriculture (acres)	Rural Resource (acres)	Natural Area (acres)	Total Open Space (acres)
Lebanon County	98,109	28,502	46,289	172,900
% of Lebanon County	41.8%	12.2%	19.7%	73.7%
Annville-Cleona SD	16,802	3,194	1,653	21,649
Annville	0	0	43	43
Cleona	198	0	20	219
North Annville	8,390	724	1,247	10,361
South Annville	8,213	2,470	343	11,026
Cornwall-Lebanon SD	16,775	4,169	6,169	27,113
Cornwall	833	1,408	991	3,232
Mount Gretna	0	0	0	0
North Cornwall	2,980	0	670	3,650
North Lebanon	4,700	286	551	5,537
South Lebanon	6,480	1,578	2,264	10,322
West Cornwall	1,783	897	1,692	4,372
ELCO SD	24,702	7,731	4,742	37,176
Heidelberg	8,883	3,827	1,757	14,468
Jackson	10,080	0	1,054	11,134
Millcreek	5,739	3,904	1,871	11,514
Myerstown	0	0	60	60
Richland	0	0	0	0
Lebanon SD	0	0	0	0
Lebanon City	0	0	0	0
West Lebanon	0	0	0	0
Northern Lebanon SD	31,785	10,706	30,010	72,501
Bethel	9,716	3,104	5,335	18,154
Cold Spring	0	908	16,709	17,616
East Hanover	10,531	1,331	2,206	14,068
Jonestown	0	0	113	113
Swatara	7,804	609	3,263	11,676
Union	3,735	4,755	2,384	10,874
Palmyra Area SD	8,044	2,701	3,715	14,460
North Londonderry	0	788	186	974
Palmyra	0	0	0	0
South Londonderry	8,044	1,913	3,529	13,486

Source: Gannett Fleming, Inc.

Note: Municipal, school district and county sums may not total due to rounding.

Military Land

Fort Indiantown Gap



Purpose:	Reserve and buffer lands for military training and related activities.
Primary Uses:	Federal and state military and homeland security
Secondary Uses:	Limited public recreation (nature preserve, trails) and limited quasi-public use of federal facilities
Water & Sewer Service:	Institutional systems
Transportation System:	Roads, pedestrian/bicycle paths, transit routes and stops, airfield
Natural Resource Priorities:	Riparian and wetland buffers, wellhead protection
Historic Resource Priorities:	Adaptive reuse of historic structures and sites, conserved building facades/exterior, historic district/landscape designations
Design Characteristics:	Facility or federal architectural design guidelines
Land Use Practices & Tools:	Not applicable
Reference Pattern of Development:	Fort Indiantown Gap
Additional Designations:	None

Table 5-4 Distribution of Military Land as shown on the Land Use Policy Map

	Military Land (acres)	Military Land (% of acres)
Lebanon County	12,336	5.3%
Northern Lebanon SD	12,336	13.0%
Cold Spring	544	4.4%
East Hanover	5,533	44.8%
Union	6,259	50.7%

Source: Gannett Fleming, Inc.

Making the Strategy Work

Lebanon County's foreseeable future is one of growth. The county's population will continue to grow, the amount of development will increase, and the community services needed by that development will expand. The location, rate, intensity and character of that growth will result from a combination of economic market factors and the land use controls administered by local governments.

In Pennsylvania, municipalities are not authorized to stop or prevent growth, but the Pennsylvania Municipalities Planning Code does enable them to plan and manage the growth in the interest of public health, safety and welfare. The MPC further specifies what kinds of regulations and land use tools municipalities may use. Planning tools include the comprehensive plan and the official map. Regulatory tools include subdivision and land development ordinances and zoning ordinances, as well as specialized development techniques, namely planned residential development and traditional neighborhood development. Both planning and regulatory tools are able to be used by intergovernmental arrangements among two or more municipalities.

Many of these basic tools are in place in Lebanon County and its municipalities, as noted in the findings from the profile. Bringing these tools into consistency with the land use plan, as well as other plan elements, is the next step. At minimum, the county and municipalities will need to review these existing tools with these questions in mind:

1. Are they current? Do they contain up-to-date, relevant information needed for local decision-making?
2. Are they coordinated? Is the policy established by the comprehensive plan in agreement or consistent with the regulations in the ordinance or ordinances?
3. Are the regulations consistently administered and enforced? Do decisions and practices adhere to the policy and regulations?

Where responses to these questions are negative, work is needed to update, coordinate and improve consistency among these basic tools. If no action is taken, the conventional practices of local government and the private development sector will continue to yield conventional community development results. Where the responses are affirmative, local government should consider raising the standards of future development by enabling the use of contemporary and innovative development techniques, and using incentives to attract developers to these techniques. In either case, more intensive communication and cooperation among county and local governments is needed to manage growth holistically and prevent leap-frog development from one municipality to another.

Current, Coordinated and Consistent

A clear community development vision and standards that are consistent with the vision are essential. This requires periodic review and occasional adjustment and refinement. As a result of the planning process, local conditions and public interest, several municipalities have already expressed interest in updating their comprehensive plans. The emphasis in any update should be on relevant data and trend analysis to strengthen policy.

Having reached a full or nearly full-built condition is no reason to defer an update or new plan. Funding programs, whether public or private, increasingly rely on

comprehensive plans or other planning documents in their evaluation of applications. A current plan that outlines strategic improvements rates higher than an outdated, general or nonexistent plan when it comes to scoring for grant eligibility.

Coordination of planning and regulations should ensure that the policy outlined in the plan is implemented or carried out through ordinances and functional plans. Ordinances can sometimes stray from the policy established in the comprehensive plan when amendments are made in response to hot topics or special issues. This kind of inconsistency can be the grounds for legal challenges. But coordination also extends into functional planning for facilities and



services such as sewage and on-lot disposal, stormwater and parks, recreation and open space. For example, comprehensive plans and Act 537 plans should show the same or similar plan service areas. Parks recreation, and open space plans should show target areas for new parks in areas planned for such uses. The level of detail is different from these functional plans than the comprehensive plans, but the coordination of need and direction should be obvious.

Having current and coordinated policy and regulations is the “setup” for land use management; consistent administration is the execution and “follow-through.” Proposals and plans need to be acknowledged as just that—proposed ideas, concepts, or strategies. If these proposals meet the minimum criteria for development, they must be approved. If other more efficient, innovative designs are desired, they should become the minimum standard for new development. Waving requirements, rezoning parcels without due consideration, and other diversions from the established policy erodes the integrity of local authority and the character of the community. For example, when adequate land is zoned for residential uses, rezoning of other parcels draws community service demand away from existing and planned areas. Rezoning should be infrequent and approved only after careful consideration of the comprehensive impacts to land use community services, water and sewer systems, transportation, and natural resources. Requirements are established as the minimum standard for all development, not just a wish list for community design.

Using the Best Available Data, Tools and Practices

Based on the path of growth and the widespread need to update policy, municipalities should look for the best available data, tools, and technology to aid them in the update process. The county’s comprehensive planning process has generated a wealth of data and analysis, including data tables and charts, maps, and map data, as well as the narrative reports. This information was purposefully organized for the future use of the municipalities. The county planning department has been a good source of information in the past and is now even better equipped to provide current information. The planning department can also provide technical assistance in acquiring or accessing state and federal data, when needed.

Adding or changing ordinance tools can seem risky to local governments that have become familiar with conventional practices. But again, conventional methods yield conventional results. If communities truly desire more aggressive growth management, change is required. Fortunately other communities in Pennsylvania have already applied the complete range of tools authorized by the MPC. Their experience as success and failure, lessons learned, and suggestions are available through organized seminars, field trips, and individual contacts. Exploring new technologies and methods through the experience of other local governments can lead to informed and relevant application of the best available land use tools.

Eleven land use management techniques are describes in the Growth Management Strategies white paper in Appendix II. Use of selected growth management tools by counties in south central Pennsylvania is shown in Table 5-5.

Table 5-5 Select Development Techniques used by South Central Pennsylvania Counties

County	Growth Management Areas	Transfer of Development Rights	Agricultural Preservation	Impact Fees	Planned Residential Development	Mixed use Areas
Adams	Yes	No	Yes	No	No	No
Berks	Yes; designated growth areas	Yes in the Western Berks Planning Region—Heidelberg, N. Heidelberg, Robesonia and Womelsdorf	Yes	Yes; 3-6 municipalities have traffic impact fees	Yes in a few suburban townships	Yes at the county and municipal levels
Lancaster	Urban Growth Boundaries	Manheim Twp Warwick Twp W. Hempfield Twp Mt. Joy Twp	Only 2 townships don't have effective agricultural preservation zoning	Manheim Twp	Applied Sporadically across county	Yes at county level; a few at municipal level
Schuylkill	Yes; designated growth areas	Discussed as an available tool but not specifically recommended	Yes	No	No	Yes at county level
Tri-County Regional Planning Commission serving Cumberland, Dauphin, and Perry	Planned Growth Areas, as part of Regional Growth Management Plan		Typical 1-acre lot zoning prevails; some sliding scale provisions		Some; seldom with rural municipalities	
York	Growth Area Boundaries; outlined in Comp Plan; affirmed by some municipalities	Shrewsbury Twp Only	Strategy Document issued Feb 2000	None	Manchester Twp	Yes at county level; a few at municipal level

Source: Development Guidelines Report: Land Use, Community Planning and Development in South Central PA, South Central Assembly for Effective Governance, 2002; Berks Vision 2020: A Comprehensive Plan for the County of Berks; Schuylkill County Comprehensive Plan, 2006

Communication and Cooperation

Perhaps the simplest step in making the growth management strategy work is encouraging more vigorous dialogue among public agencies. County and local government, municipal authorities and school districts all share common interests in the vitality of their communities. As each entity makes decisions, it gathers and analyzes data, trends and general information in search of effective and efficient solutions. More frequent sharing of this information among public agencies leads to better community development through cooperative and collaborative planning, funding applications and local investment. This kind of communication is the start of intergovernmental cooperation.

Municipalities in the Northern Lebanon School District have been meeting informally with representatives of the school district for several years. These meetings are held on a bi-monthly to quarterly basis to discuss inter-municipal issues and opportunities. They invite guest speakers, share recent decisions and discuss upcoming actions. The Northern Lebanon group has even conducted some informal research on housing in the school district's region. This is a model approach toward cooperative and collaborative planning and a similar approach has been considered by the municipalities of the Cornwall-Lebanon School District.



Incentives for Innovation and Best Practices

Unconventional practices can also seem risky to developers, builders, and property renovators. Educational seminars, hands-on workshops, and field trips to model developments to see the development and meet with the developer can be time well spent in convincing both the public and private sector sides of the value and benefits of contemporary and innovative practices. Fact and tip sheets can serve to educate all parties, as well as the public, on appropriate use of these alternatives.

Encouraging developers and builders to apply these alternatives may require incentives. Such incentives should not comprise the quality of the development, i.e., reducing minimum standards that affect quality or safety. Rather, they should focus on design features that enable the developer to maximize the return on their investment, such as density bonuses (e.g., extra units) or expedited review and approval of submitted plans.

Interrelationship of Land Use to other Elements of the Comprehensive Plan

Land Use and Transportation

Land use has an implicit tie to transportation. Each use is either an origin or destination for any travel or transportation trip. Keeping frequently visited uses close to one another reduces travel time and the demand for system infrastructure. For example, the need for

roads can be significantly reduced if sidewalks and trails are constructed for travel between residential neighborhoods and schools, parks, and neighborhood shopping areas. New development can also be used to create new connections between existing corridors to offer more and varied route options for daily travel and emergency access.

Community Facilities

Like transportation, land use implies a demand for community services in all but the most remote areas of the community. Whether for residential, commercial, industrial, institutional or even agricultural uses, development places increased demands for public safety and emergency response services, access to medical facilities, clean water, and access to waste disposal facilities on community service providers. No land use is free of service demands. The vision or plan for land use is essential to managing the amount and distribution of the demanded services and the facilities that host them.

Natural Resource Protection

The county's natural assets are a valued commodity that demands consideration. Its agricultural soils and forest vegetation are the raw materials of its resource-base industries. Its supply of high quality water is essential to human and natural communities, present and future. At the same time, the county must view its planning holistically, addressing concerns that extend beyond just environmental policy. Economic, social, fiscal, institutional, and legal constraints oblige the county to view natural resources as a key element, but not the only element of successful community planning.



Historic Resources

Historic resources can define the character of a community. When maintained as an integral part of the community, these resources become landmarks in local culture and references for the design of future development. While the materials and technologies of construction change over time, the scale, pattern, and style of design can be applied as the desired features of local architectural character.

Energy Conservation

The amount and type of energy used to move people and goods in a community is determined in part by patterns of development and the transportation system. The spatial relationships of individual buildings, neighborhoods, communities and regions determine how far and by what means people will travel to work, recreational facilities, schools, religious centers, stores, and entertainment venues and how many of these destinations will send and receive their supplies and products. Zoning practices from the mid to late 20th century have increasingly separated residential neighborhoods from other destinations, resulting in increased travel and more expansive public infrastructure. Land use policies that promote a mix of compatible uses and transportation policies that promote multi-modal travel options can reduce the energy demands of residents, businesses and community facilities and services.

Action Plan

The Land Use Plan for Lebanon County is comprised of recommendations and the future land use map. The Land Use Plan emphasizes land use planning that accommodates projected community and economic growth, directs growth to areas of existing or planned infrastructure, and protects sensitive resources from development and its impacts.

The plan acknowledges that land use decisions in Lebanon County are made at the local level; therefore the county's role is primarily advisory, recommending consistency, compatibility and efficiency of land use planning. Through improved contract services and technical assistance, increased coordination with state and federal agency programs, and the county's development plan review process, the county can provide precedents and best practices for sustainable community development and coordination between land use decision-making and other community investments.



Vision, Goals and Objectives

Vision

Create and adhere to a logical, coordinated land use pattern that provides for a variety of development types and recognizes land and infrastructure capabilities and limitations.

Goals and Objectives

- 1. Provide exemplary leadership in community planning and development.**
 - A. Facilitate consistency between county and municipal planning and development.
 - B. Provide professional guidance to municipal officials and community leaders.
 - C. Advance the application and capability of providing Geographic Information Systems (GIS) data mapping and analysis countywide.

- 2. Direct the majority of new development toward existing communities and utilities.**
 - A. Encourage the appropriate redevelopment of existing vacant or underutilized sites.
 - B. Support the safe cleanup and productive reuse of “brownfield” sites.
 - C. Ensure consistency between land use designation, the availability of public sewer and water service, and transportation system capacity.

- 3. Conserve land needed for rural industries and land patterns indicative of rural character.**
 - A. Promote development techniques that will conserve natural resources, minimize fragmentation of land and cover type, and complement community character.

4. **Protect sensitive environmental resources from the direct and indirect impacts of development.**
 - A. Minimize the destruction and degradation of sensitive environmental resources.

5. **Develop and expand cooperation and communication among public and private partners.**
 - A. Promote regional partnerships for community planning and the provision of public services.
 - B. Expand public relations efforts.

Recommendations

Goal 1:	Provide exemplary leadership in community planning and development.
Objective 1A:	Facilitate consistency between county and municipal planning and development.
Action 1A1:	Support (and help fund) municipal and multi-municipal comprehensive planning efforts throughout the county.
Intended Outcome:	All municipalities in the county will have up-to date municipal or multi-municipal comprehensive plans so they can better respond to, and guide, development pressures and land use changes.
Time Horizon:	Ongoing with emphasis in 2008-2009 and 2010-2011
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department; Municipalities
Support Partners:	School Districts
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP); PA DCED Urban Development Program (UDP)

Action 1A2:	Improve consistency of provisions and the enforcement of municipal and multi-municipal zoning and subdivision and land development ordinances. Ensure their consistency with comprehensive plans.
Intended Outcome:	To the greatest extent possible, zoning ordinances (and enforcement of them) are consistent across the county to allow for rational, planned growth.
Time Horizon:	Ongoing with emphasis in 2010-2011 and 2012-2013
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	N/A
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)
Action 1A3:	Adopt "Smart Growth" principles and use them as a comparative checklist for community development decisions.
Intended Outcome:	The "Lebanon County Principles for Growth and Resource Conservation" serve as guidelines for evaluating development plans, zoning permits, etc. leading to a consistent application of smart growth principles to projects of all sizes, countywide.
Time Horizon:	Upon adoption
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Municipalities

Action 1A4:	Utilize access management regulatory controls, where applicable, throughout the county. Consider applications along the principal and minor arterials, as well as major and minor collectors, particularly in urbanized and urbanizing areas.
Intended Outcome:	Prevent or reduce traffic congestion and safety hazards that would otherwise result from unmanaged lot access to state and local roadways.
Time Horizon:	Ongoing
Lead Partners:	LEBCO MPO; Lebanon County Planning Department; Municipalities
Support Partners:	School Districts
Funding Sources:	Municipalities; LEBCO MPO
	Revise subdivision and land development ordinances to require development of appropriate transportation facilities for safe motorized and non-motorized travel.
Intended Outcome:	Ensure that new developments provide reasonable transportation choices for citizens.
Time Horizon:	2010-2011 and ongoing as an implementation of planning policy
Lead Partners:	Lebanon County Planning Department; LEBCO MPO
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Action 1A6:	Explore and evaluate the use of the official map as a means to identify potential acquisition for county and municipal purposes.
Intended Outcome:	Identify target parcels or rights-of-way for acquisition; establish a "right-of-first refusal" option for lands that become available or are proposed for development.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Planning Department; LEBCO MPO; Municipalities; Municipal authorities
Support Partners:	None
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Objective 1B: Provide professional guidance to municipal officials and community leaders.

Action 1B1:	Provide training and education programs to municipal officials and LCPD staff.
Intended Outcome:	LCPD staff and municipal officials share a level of proficiency and stay up-to-date on trends, issues, and innovations in planning.
Time Horizon:	Ongoing, with emphasis in 2008-2009
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department; LEBCO MPO; Municipalities
Support Partners:	Lebanon County Association of Township Supervisors; Pennsylvania State Association of Township Supervisors/Pennsylvania State Association of Boroughs
Funding Sources:	Municipalities; LEBCO MPO

Action 1B2:	Review and tailor model ordinances that encourage mixed-use, resource protection, and other, more creative, zoning schemes. Develop sample guidelines and documents for common studies and planning efforts as references for municipal use.
Intended Outcome:	A common set of references enables municipalities to more easily develop local or multi-municipal ordinances that are consistent with the county comprehensive plan.
Time Horizon:	2010-2011 as an implementation of planning policy
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Objective 1C:	Advance the application and capability of providing Geographic Information Systems (GIS) data mapping and analysis countywide.
Action1C1:	Continue to promote the Lebanon City/County Geographic Information Systems Department as a data source for local government, public agencies, and the public at large.
Intended Outcome:	Utilize the mapping and analytical capacities of Geographic Information Systems (GIS) for land use identification, trend analysis and management.
Time Horizon:	Ongoing
Lead Partners:	LC/CGIS; Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Lebanon County Commissioners

Action 1C2:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.
Intended Outcome:	A state of the art GIS capable of providing data analysis and mapping for county and municipal planning activities.
Time Horizon:	Ongoing
Lead Partners:	LC/CGIS; Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Goal 2:	Direct the majority of new development toward existing communities and utilities.
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Objective 2A:	Encourage the appropriate redevelopment of existing vacant or underutilized sites.
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Action 2A1:	Encourage the use of mixed use development techniques appropriate to urban and suburban areas.
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Intended Outcome:	New developments offer a wider range of housing choices and commercial/retail amenities providing an attractive alternative to typical low-density, single family home developments.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Core Communities Housing Program; PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP); PA DCED Urban Development Program (UDP)

Action 2A2:	Facilitate development and growth in desired areas by focusing transportation and utility investments there.
Intended Outcome:	The county and local municipalities coordinate zoning, utility and transportation planning to make development and redevelopment in the desired areas attractive to developers and sustainable by local government.
Time Horizon:	Ongoing
Lead Partners:	LEBCO MPO; Water/Sewer Authorities
Support Partners:	Lebanon County Planning Department; Municipalities
Funding Sources:	LEBCO MPO; PennVEST; PA Infrastructure Bank; Municipalities

Objective 2B:	Support the safe cleanup and productive reuse of “brownfield” sites.
Action 2B1:	Identify and assess brownfield sites and pursue grant and loan programs for redevelopment
Intended Outcome:	Facilitate infill development and reduce the amount of vacant or underutilized land.
Time Horizon:	2012-2013 as an implementation of planning policy
Lead Partners:	Lebanon Valley Economic Development Corporation; Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Pennsylvania Department of Environmental Protection (PA DEP); U. S. Environmental Protection Agency (EPA)

Objective 2C:	Ensure consistency between land use designation, the availability of public sewer and water service, and transportation system.
Action 2C1:	Identify the siting criteria for locating target industries, identify/designate and market these locations to prospective industries.
Intended Outcome:	Identify areas where particular land uses and potential new industries are compatible.
Time Horizon:	2010-2011
Lead Partners:	Lebanon Valley Economic Development Corporation; Lebanon County Planning Department
Support Partners:	Municipalities; Water/Sewer Authorities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Core Communities Housing Program; PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP); PA DCED Urban Development Program (UDP)
Action 2C2:	Explore ways to make re-use and redevelopment less expensive (for example: approving building code exceptions for older buildings, finding additional grant or loan programs intended for redevelopment).
Intended Outcome:	Make redevelopment as attractive and cost-effective as building on undeveloped land to provide a sustainable alternative to greenfields development and to help revitalize Lebanon County's established communities.
Time Horizon:	2012-2013 and ongoing
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Economic Development Corporation
Support Partners:	Municipalities
Funding Sources:	Municipalities; Lebanon Valley Economic Development Corporation

Action 2C3:	Establish airport hazard zoning in municipalities with aviation facilities.
Intended Outcome:	Protection of air space and management of land use/aviation conflicts.
Time Horizon:	2012-2013
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	PennDOT; Federal Aviation Administration; LEBCO MPO
Funding Sources:	Municipalities; PA DCED LUPTAP; PennDOT
Action 2C4:	Monitor and report non-major commercial and industrial development trends.
Intended Outcome:	Better identify trends in commercial and industrial development and redevelopment to spot opportunities for increased reuse of commercial and industrial sites.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon Valley Economic Development Corporation
Funding Sources:	Municipalities

Goal 3:	Conserve land needed for rural industries and land patterns indicative of rural character.
Objective 3A:	Promote development techniques that will conserve natural resources, minimize fragmentation of land and cover type, and complement community character.
Action 3A1:	Work to sustain agriculture and forestry as viable industries by guiding residential development away from large, scattered developments that fragment productive agricultural and forest lands.
Intended Outcome:	Agriculture and forestry, which require relatively large tracts of land, remain viable, and fragmentation of rural land occurs infrequently.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Lebanon County Conservation District
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)
Action 3A2:	Review and tailor use of model subdivision and land development ordinances to enable preferred development patterns.
Intended Outcome:	A common set of references enables municipalities to more easily develop local or multi-municipal ordinances that are consistent with the county comprehensive plan.
Time Horizon:	2010-2011 as an implementation of planning policy
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Action 3A3:	Encourage municipalities to develop or update their zoning to help protect valuable natural resources. Consider concepts from the 2001 Cornwall Borough Zoning Ordinance as a model for the county and other municipalities.
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Intended Outcome:	A common set of references enables municipalities to more easily develop local or multi-municipal ordinances that are consistent with the county comprehensive plan.
Time Horizon:	2010-2011 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Action 3A4:	Continue farmland preservation efforts. Assess existing agricultural zoning ordinances in comparison to other model agricultural zoning ordinances.
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Intended Outcome:	Expansion of the Agricultural Security Zone program. Agricultural zoning ordinances reassessed for consistency and effectiveness.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Conservation District; Lebanon County Agricultural Preservation Board; Lebanon Valley Conservancy
Support Partners:	Lebanon County Planning Department; Municipalities;
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Goal 4: Protect sensitive environmental resources from the direct and indirect impacts of development.

Objective 4A: Minimize the destruction and degradation of sensitive environmental resources.

Action 4A1: Acknowledge the presence, location and vulnerability of sensitive environmental resources in municipal plans and regulations.

Intended Outcome: Local decision makers know which resources are most threatened and where they are located.
Time Horizon: 2008-2009 and ongoing
Lead Partners: Lebanon County Planning Department
Support Partners: Municipalities; Lebanon County Conservation District
Funding Sources: Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Action 4A2: Revise subdivision and land development ordinances to require development proposals to illustrate the location of sensitive environmental resources.

Intended Outcome: Both developers and local municipalities are more aware of sensitive environmental resources and work together to protect them.
Time Horizon: 2008-2009 and ongoing
Lead Partners: Lebanon County Planning Department
Support Partners: Municipalities
Funding Sources: Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Action 4A3:	Promote the use of pre-submission site visits and sketch plans to gain an early understanding of site constraints and opportunities.
Intended Outcome:	Both developers and local municipalities are more aware of sensitive environmental resources and work together to protect them.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Goal 5:	Develop and expand cooperation and communication among public and private partners.
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Objective 5A:	Promote regional partnerships for community planning and the provision of public services.
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Action 5A1:	Continue to provide regular reports of recent and anticipated development trends to municipalities and school districts.
Intended Outcome:	School districts and municipalities have the necessary information to make sound land use decisions.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners

Action 5A2:	Participate in formal and informal discussions of regional planning: issues, alternatives, and recommendations.
Intended Outcome:	Continuous outreach to the public, developers, municipal and school district officials facilitates cooperation and leads to better land use decisions.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners

Objective 5B: Expand public relations efforts.

Action 5B1:	Develop an annual report on the implementation progress of the comprehensive plan. This could be prepared as short as a one-page report card or longer multi-page report.
Intended Outcome:	Assessment of progress, re-evaluation of goals and summary for budgetary purposes.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners

Action 5B2:	Develop a regular news medium, e.g., paper or electronic newsletter, suitable for the public audience.
Intended Outcome:	Publicize planning activities, goals and accomplishments, resulting in informed, supportive municipalities and citizens.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners
Action 5B3:	Host proposed amendments to public planning documents on the planning department's website. Such might include advance posting prior to public notice requirements.
Intended Outcome:	Encourage citizen input and stakeholder involvement.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners
Action 5B4:	Continue the working relationship with local news media to publicize milestones in major planning activities, and key statistics in proposed and approved development and construction across the county.
Intended Outcome:	Utilize media opportunities to develop a more informed citizenry.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Lebanon County Commissioners

6 *Transportation Plan*

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The Lebanon County 2005-2030 Long Range Transportation Plan identifies the county's long-term transportation needs and strategies for improving the transportation network relative to the challenges of community development and growth. In doing so, the plan fulfills the federal transportation planning requirements for the Lebanon County Metropolitan Planning Organization (LEBCO MPO), thus ensuring the county's continued eligibility for Federal transportation funding.



The plan includes short-term (1-4 years), medium-term (5-12 years) and long-term (13-25 years) projects and strategies to advance steady progress toward short, medium and long range system goals. The plan will be updated every four years to adapt to changing conditions and new county, regional and state priorities. With SAFETEA-LU, the Federal Highway Administration and Federal Transit Administration have undertaken an administrative process to change the frequency of updates to four years, and this plan attempts to satisfy those requirements.

Introduction

What is a Metropolitan Planning Organization?

A metropolitan planning organization (MPO) is a policy-making body made up of representatives from local and state government and transportation authorities. The Federal Aid Highway Act of 1962 requires the formation of an MPO for any urbanized area with a population greater than 50,000 individuals. Each urbanized area listed by the U.S. Census Bureau must be represented by an MPO in order to carry out the metropolitan transportation planning process specified in Federal transportation regulations (23 USC 134 and 49 USC 5303).

According to the Federal Highway Administration (FHWA), the six core functions of an MPO are:

- **Establish a setting:** Establish and manage a fair and impartial setting for effective regional decision-making in the metropolitan area.
- **Evaluate alternatives:** Evaluate transportation alternatives, scaled to the size and complexity of the region, to the nature of its transportation issues, and to the realistically available options.
- **Maintain a Long Range Transportation Plan (LRTP):** Develop and update a long range transportation plan for the metropolitan area covering a planning horizon of 25 years that fosters (1) mobility and access for people and goods, (2) efficient system performance and preservation, and (3) quality of life.
- **Develop a Transportation Improvement Program (TIP):** Develop a program based on the long range transportation plan and designed to serve the area's goals, using spending, regulating, operating, management, and financial tools.

- **Involve the public:** Involve the general public and all the significantly affected sub-groups in the four essential functions listed above.
- **Develop a Unified Planning Work Program:** Receive federal and state funds through the UPWP to carry out the above tasks.

FHWA and FTA require metropolitan planning organizations in each urbanized area to maintain a continuing, cooperative and comprehensive transportation planning process that considers all modes through three mandated products:

- A Long Range Transportation Plan (LRTP)
- A Transportation Improvement Program (TIP)
- A Unified Planning Work Program (UPWP)

What is the Lebanon County MPO?

In May 2002, based on the 2000 U.S. Census, Lebanon County was designated by the U.S. Census Bureau as an “urbanized area,” defined as a “densely settled territory containing 50,000 or more people,” thus requiring the formation of the Lebanon County MPO.¹

The Lebanon County Metropolitan Planning Organization (LEBCO MPO) is the local agency responsible for transportation planning and programming. It includes representatives from county and local government (elected officials, planning department, emergency management), local transit, aviation, and trail organizations, business and industry (including agriculture and tourism), as well as state and federal transportation agencies. LEBCO MPO provides the county with a collaborative planning forum to address transportation-related issues from a countywide and regional perspective and to plan for and make decisions on the use of federal transportation funds.



The Lebanon County MPO is comprised of an MPO Policy Board and an MPO Technical Planning Committee which meet bimonthly at advertised meetings.

- The MPO Policy Board includes voting representatives from Lebanon County government, the City of Lebanon, County of Lebanon Transit, PennDOT’s Central Office and District 8-0 office, Lebanon Valley Chamber of Commerce, and one representative from the county’s townships and one from the county’s boroughs. Non-voting, advisory members include representatives from the Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency. The role of the Policy Board is to approve all actions of the MPO.
- The MPO Technical Planning Committee includes voting representatives from Lebanon County government, Lebanon County Planning Department, the City of

¹ US Census, Federal Register, 67 FR 21962 (May 1, 2002)

Lebanon, County of Lebanon Transit, Lebanon Valley Economic Development Corporation, PennDOT's Central Office and District 8-0 office, one representative from the county's townships and one from the county's boroughs, and one representative from the Aviation community. Non-voting, advisory members include representatives from the Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency, Lebanon County/City Geographic Information Systems office, the agricultural community, Lebanon Valley Tourist Promotion Agency, Community of Lebanon Association, Lebanon Valley Rails-to-Trails and Lebanon County Emergency Management Agency. The role of the Technical Planning Committee is to provide procedural and technical guidance on the products and processes of the MPO.

Lebanon County Planning Department provides staff support to both the Policy Board and the Technical Planning Committee.

Lebanon County MPO Region

Lebanon County is a 5th class county in south central Pennsylvania. The county encompasses 362.9 square miles or 232,256 acres. Its population in 2000 was 120,327 persons. Lebanon County ranks 28th among the state's 67 counties in population and 60th in land area.

The county is comprised of 26 municipalities: sixteen townships of the second class, two townships of the first class, seven boroughs, and one third class city, the City of Lebanon. The City of Lebanon is the county seat and has traditionally been the center of major business and banking activity. The boroughs developed as community centers along major trade and transportation routes, connecting farmers and tradesmen with regional markets.

Lebanon County is bordered by Dauphin County to the north and west, by Berks and Schuylkill Counties to the east, and by Lancaster County to the south. Neighboring metropolitan centers include Harrisburg, Lancaster, Reading, and Pottsville.

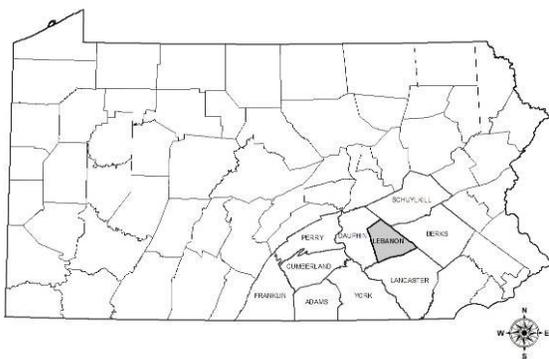


Figure 6-1 South Central PA Counties

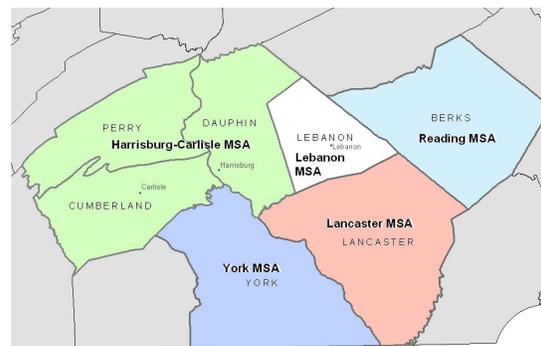


Figure 6-2 Lebanon and Adjacent MPOs

The MPO territory includes the City of Lebanon and all but three municipalities of Lebanon County. Regional transportation planning for Palmyra Borough and portions of North Londonderry Township and South Londonderry Township is conducted by the Harrisburg Area Transportation Study (HATS), the MPO for the Harrisburg urbanized region. It is the intent of the Lebanon County MPO to eventually conduct federally-

funded long range transportation planning activities for these communities and bring them into the Lebanon County MPO.

Further description of Lebanon County’s location within the surrounding region can be found in Chapter 2, Regional Setting, of the comprehensive plan.

The *Demographic Profile, Background Study #1*, focuses on historic population statistics and population projections. Lebanon County has shown consistent growth over the past four decades, from 90,853 residents in 1960 to 120,327 residents in 2000. Approximately 75% of the population lives within three miles of US Route 422. For future planning,



population projections were based upon the linear projection method. The county is expected to continue to grow through 2020, and in terms of growth rates, the county’s foreseeable growth rate is expected to be similar to that of the 1980-1990 decade.

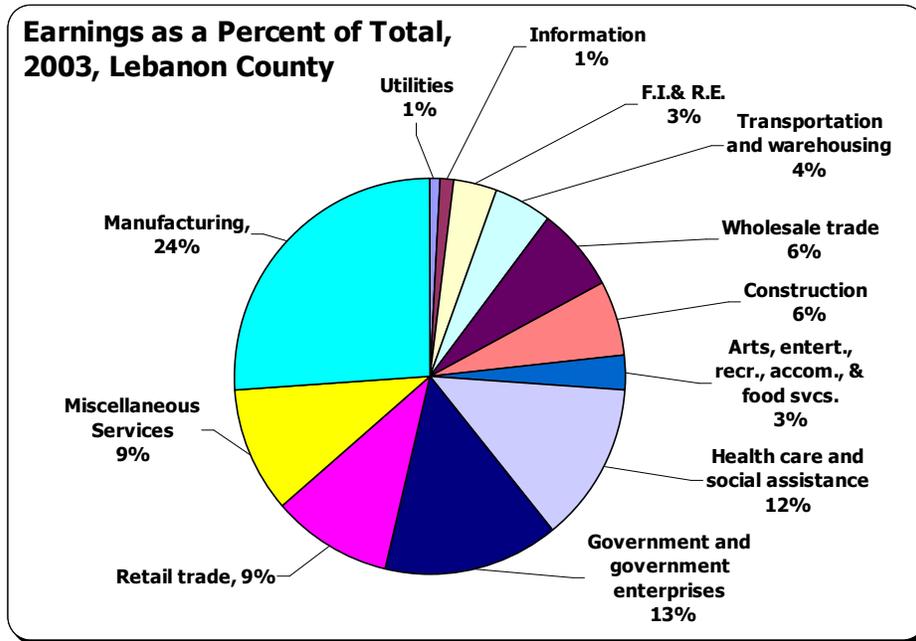
Future growth in the townships will outpace growth in most of the boroughs and the City of Lebanon. The exceptions will be Cornwall Borough and Jonestown Borough. Only 2 of the 26 municipalities (Mount Gretna Borough and West Lebanon Township) will not see growth because their land areas are small and there is limited vacant land to develop. The median age in Lebanon County is also projected to remain above that of the state resulting from the growing number of senior citizen housing complexes. While all minority ethnic groups grew in Lebanon County between 1990 and 2000, the most significant growth occurred among the Hispanic population.

Between 1990 and 2000, almost 4,700 new homes were constructed in Lebanon County. Housing growth in Lebanon County during that period was 10.5%; outpacing statewide growth of 6.3%. Housing growth took place in all but 5 of Lebanon County’s municipalities. The average household size in Lebanon County is 2.49 persons. In the last 15 years, 95% of the new residential units were single family dwellings or mobile homes and less than 5% were multifamily dwellings. These and other housing facts, figures and programs are outlined in *Chapter 12 – Housing Plan*.



A very detailed assessment of Lebanon County’s economic structure, performance, and labor force are documented in *Chapter 8 – Economic Development Plan*. The county’s economy has evolved from one based primarily on agricultural pursuits to a diverse mixture of agricultural, industrial, manufacturing and service enterprises. The diversity of the modern-day Lebanon County economy is shown in Figure 6-3. Please note that agriculture and agriculture-related earnings are listed in separate tables and charts in the *Economy and Employment Profile, Background Study #3*.

Figure 6-3 Earnings as a Percent of Total Earnings



Source: US Bureau of Economic Analysis, REIS, Series CA25.

Miscellaneous Services: services other than health and social assistance; includes education

F.I.&R.E: Finance, Insurance, Real Estate and Rental and Leasing

Arts, ent., recr., accom., & food svcs.: Arts, Entertainment, Recreation, Accommodations, & Food Services

The Long Range Transportation Plan

As an MPO, Lebanon County is required by federal regulations to develop a Long Range Transportation Plan (LRTP) and update that plan every four years. This is the inaugural LRTP. The horizon year of this plan is 2030. As the Lebanon County Comprehensive Plan is finalized in late 2007 and as implementation begins in calendar year 2008, the transportation plan will be amended and re-adopted in the spring of 2008 along with the development of the 2009-2012 TIP. The next major update of the plan will probably occur in 2010.

Key elements of the comprehensive plan that will influence the transportation plan in the near future are the Community Facilities Plan, the Housing Plan, the Natural Resources Plan, Open Space, Greenways, and Recreation Plan, the Historic Resources Plan, the Land Use Plan, and the Energy Conservation Plan.

Each successive update of this document will respond to the trends and projected changes in the county's demographics, economy, and transportation needs and serve as a guide for future transportation investments. This plan will be reviewed and updated every four years and, when appropriate, the vision and goals will be refined and adjusted.

The Long Range Transportation Planning process comprises three main elements:

- **A transportation system profile** – an inventory of transportation facilities and an assessment of its capacity to serve its users; this includes historic and forecasted user demand of the transportation facilities and a discussion of the need and opportunities for transportation planning to sustain Lebanon County's quality of life.

- **Goals and policy statements** – a description of the transportation system that Lebanon County strives to provide and other policies addressing areas such as maintenance, preservation, mobility, access and decision making.
- **A transportation plan** – a prioritized list of projects, improvements and other strategies and services to be funded and programmed through private, local, state, and/or federal sources.

Vision Statement, Goals and Policy Considerations

Introduction

The Lebanon County LRTP is organized around a vision statement, six goals, and a policy statement that identifies the basic values for the plan's development and implementation. The Vision Statement, Goals and Policy Considerations were developed in conjunction with the MPO Policy Board and Technical Planning Committee.

Vision Statement

The Vision Statement conveys the preferred future direction and condition of the community concerning the countywide transportation network.

The Lebanon County Long Range Transportation Plan Vision Statement

The transportation system of Lebanon County will safely, efficiently and effectively serve the mobility, access and travel needs of residents, businesses and visitors.

Goals

The Plan is organized around six goals that identify key directions or areas of priority.

The Lebanon County Long Range Transportation Plan's Goals

1. Provide a safe and secure transportation system;
2. Provide a multi-modal system that is efficient, interconnected and accessible;
3. Promote a sustainable transportation system that compliments the county's natural and built environment;
4. Meet the challenges and opportunities of growth through collaborative planning, funding and project implementation;
5. Target investments for maximum local and regional benefit and impact; and

Policy Statement

The Lebanon County Long Range Transportation Plan process has identified a multi-faceted policy statement as a method of assessing candidate projects and strategies to ensure that they adhere to the vision and goals listed above as well as the eight federal planning factors.

Lebanon County Long Range Transportation Plan Policy Statement

1. Establish databases and monitoring systems to ensure that funding is targeted to preserve Lebanon County's transportation infrastructure.
2. Maintain and improve the existing transportation system;
3. Improve the safety and security of the transportation system for motorized and non-motorized users;
4. Increase the efficiency and connectivity for moving both people and goods, including the protection of future transportation corridors;
5. Promote efficient system management and operation, including the application of access management provisions in local regulations;
6. Focus on affordable and sensible operational improvements;
7. Enhance the integration and connectivity of the transportation system for people and freight;
8. Ensure that the county's bicycle and pedestrian network is fully integrated into the county's multimodal transportation system.
9. Emphasize transit's role in support of the continued economic health of Lebanon County and its integral relationship to mobility, land use and overall community development.
10. Coordinate transportation system improvements with land use, infrastructure, and other community development policies and stakeholders;
11. Encourage local support for transportation improvements as well as opportunities for private sector involvement;
12. Support the economic vitality of Lebanon County by contributing to its competitiveness, productivity and efficiency;
13. Protect and enhance the environment, promote energy conservation, improve the quality of life and encourage a healthy lifestyle;
14. Promote community and neighborhood livability, including the protection of scenic corridors.
15. Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.

Federal Planning Factors

As required by federal regulation, eight planning factors are considered in this Long Range Transportation Plan and reflected in the LRTP’s Vision, Goals and Policy Statement. On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which refined and expanded the planning factors. Table 6-1 federal planning factors and the applicable goal or policy statement item(s) identified for the LEBCO MPO LRTP.

Table 6-1 Federal Planning Factors and LEBCO MPO LRTP Compliance

Federal Planning Factor	LEBCO LRTP Goal or Policy Statement Item(s)
<ul style="list-style-type: none"> Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency. 	<ul style="list-style-type: none"> Support the economic vitality of Lebanon County by contributing to its competitiveness, productivity and efficiency. Emphasize transit’s role in support of the continued economic health of Lebanon County and its integral relationship to mobility, land use and overall community development.
<ul style="list-style-type: none"> Increase the safety of the transportation system for motorized and non-motorized users. 	<ul style="list-style-type: none"> Improve the safety and security of the transportation system for motorized and non-motorized users.
<ul style="list-style-type: none"> Increase the security of the transportation system for motorized and non-motorized users. 	<ul style="list-style-type: none"> Improve the safety and security of the transportation system for motorized and non-motorized users.
<ul style="list-style-type: none"> Increase the accessibility and mobility for people and for freight. 	<ul style="list-style-type: none"> Increase the efficiency and connectivity for moving both people and goods, including the protection of future transportation corridors. Enhance the integration and connectivity of the transportation system for people and freight. Ensure that the county’s bicycle and pedestrian network is fully integrated into the county’s multimodal transportation system. Emphasize transit’s role in support of the continued economic health of Lebanon County and its integral relationship to mobility, land use and overall community development. Coordinate transportation system improvements with land use, infrastructure, and other community development policies and stakeholders.
<ul style="list-style-type: none"> Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns. 	<ul style="list-style-type: none"> Protect and enhance the environment, promote energy conservation, improve the quality of life and encourage a healthy lifestyle. Coordinate transportation system improvements with land use, infrastructure, and other community development policies and stakeholders.

Federal Planning Factor	LEBCO LRTP Goal or Policy Statement Item(s)
<ul style="list-style-type: none"> Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight. 	<ul style="list-style-type: none"> Enhance the integration and connectivity of the transportation system for people and freight; Ensure that the county’s bicycle and pedestrian network is fully integrated into the county’s multimodal transportation system.
<ul style="list-style-type: none"> Promote efficient system management and operation. 	<ul style="list-style-type: none"> Promote efficient system management and operation, including the application of access management provisions in local regulations.
<ul style="list-style-type: none"> Emphasize the preservation of the existing transportation system. 	<ul style="list-style-type: none"> Establish data bases and monitoring systems to ensure that funding is targeted to preserve Lebanon County’s transportation infrastructure. Maintain and improve the existing transportation system.

Conditions and Trends

Throughout Pennsylvania, there is increasing recognition of the linkages between land use and transportation, namely how land use impacts the efficiency and effectiveness of the transportation system. Proactive planning in anticipation of growth is critical to mitigate the impacts of the population increases expected for Lebanon County as described in the *Demographic Profile, Background Study #1* in Appendix I.

The evaluation of existing conditions and observable trends in the use of the transportation network provides a starting point for the development of strategies and projects for inclusion in the Long Range Transportation Plan.

The *Transportation Profile, Background Study #8*, contains a thorough description of Lebanon County’s existing transportation network including an inventory of roads, bridges, public transit, rail freight lines, airports and bicycle and pedestrian facilities. The profile reveals many of the locations where problems exist, which trends are changing the way that the system is being used, and how future demand will require enhancements to accommodate growth.



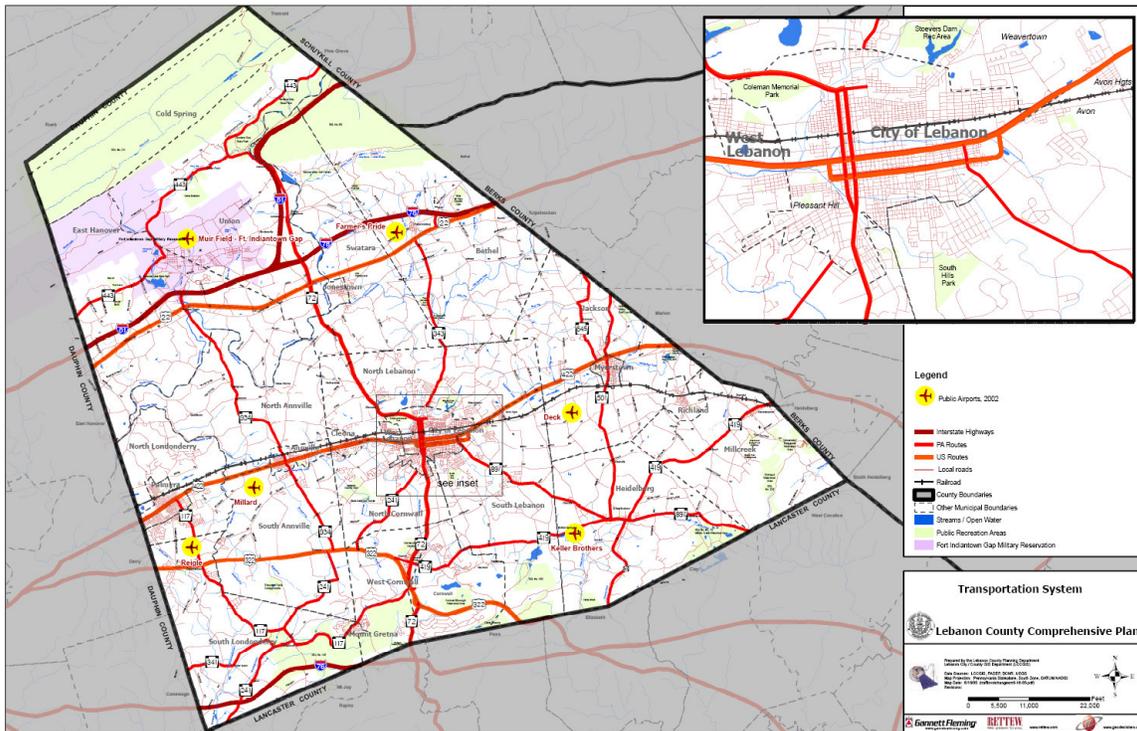
Overall Countywide Trends

Recent and projected future residential growth within Lebanon County has affected the transportation network’s efficiency and changed the way residents, workers and others use the system. Generally observed countywide trends as identified in the profile include:

- The number of residents and jobs within Lebanon County are expected to grow until at least 2020.
- Residents are currently traveling longer and farther to work than they did ten years ago.
- Traffic pressure from increasing demand for residential and business development will continue to impact the county’s roadway infrastructure.
- Traffic on the county’s main roads is expected to continue to increase, creating additional delay and the potential for trip diversions onto secondary roads.

The net effect of the trends identified above reinforces the need for a coordinated planning approach that reinforces the link between land use, transportation and economic development to smartly accommodate future residential and job growth.

Figure 6-4 Lebanon County’s Transportation Network



Key Trends by Mode

The profile focused on each transportation mode to highlight usage trends and key indicators that required further evaluation in the Long Range Transportation Plan. Table 6-2 summarizes many of the key transportation trends identified in the profile. This Long Range Transportation Plan will identify the strategies and projects to address the trends and indicators listed below.

Table 6-2 Key Trends by Transportation Mode

Mode or Facility	Key Trends and Indicators for Additional Evaluation
Highway, Roadway, Bridges and ITS	<ul style="list-style-type: none"> • Traffic growth on the interstates could bring additional goods movement-related and residential development to areas near interchanges, specifically along I-81 and I-78. • Traffic growth on critical PA state roads, specifically US 322 from Cornwall through Campbelltown (South Londonderry) to the county line, US 422 in Myerstown and PA 241 in South Londonderry reveal significant increases. These locations, and others throughout the county, need to be examined to determine whether capacity enhancements or other traffic control/safety measures are necessary. • Congestion management will dictate evaluation of highway corridors instead of individual highway segment projects. • Countywide population and employment growth will increase traffic throughout the system. Capacity, traffic congestion, pavement and bridge conditions and traffic signal operations will need to be examined to both ensure safety/efficiency and consistency with community character. • High Occurrence Crash Locations must be evaluated to identify the reason for the high number of traffic incidents as well as any trends or conditions that will continue to compromise system safety. • Bridge conditions in the county must continue to improve.
Transit	<ul style="list-style-type: none"> • Both local and intercity transit is losing market share. Information and analysis is needed to clarify why this is occurring and what steps can reverse this trend. • The majority of minority and low-income residents are located in and around the City of Lebanon, where transit opportunities currently exist and may be more effectively enhanced. • The CORRIDORtwo Regional Rail would provide commuter rail transit service connecting the City of Lebanon and Harrisburg via the Norfolk Southern Harrisburg Line. There is no approved schedule for design and construction of the project. • Work with the Susquehanna Regional Transportation Partnership to help develop and promote transportation options beyond the single occupancy vehicle.
Freight Rail	<ul style="list-style-type: none"> • Traffic on Norfolk Southern’s Harrisburg Line is expected to continue to grow. • The 9th & 10th Streets Bridges over Norfolk Southern project will remove two at-grade crossings within the City of Lebanon. These bridges will improve traffic flow and access for emergency vehicles. • The safety of grade crossings countywide would be enhanced by

Mode or Facility	Key Trends and Indicators for Additional Evaluation
	<p>the installation of gates, as planned by the LEBCO MPO.</p> <ul style="list-style-type: none"> Automated horns and other options should be investigated to address noise complaints while preserving safety at rail crossings.
Aviation	<ul style="list-style-type: none"> Lebanon County has four privately-owned public use airports (Deck, Farmer's Pride, Keller Brothers, and Reigle) and one private, private use airport. The 2002 Lebanon County Airport Feasibility Study and Master Plan concluded that while there is local interest in a public general use airport, airport users are generally satisfied that the county's current capacity meets their needs. The closest major commercial airport is in Harrisburg (33 miles way). Further examinations are necessary to determine whether improved airport access should be a priority.
Non-Motorized	<ul style="list-style-type: none"> Anncville, Cleona, Lebanon, Palmyra, Myerstown, Schaefferstown, Richland and Jonestown are good examples of communities that have walkable and bike-friendly downtowns. Continued maintenance and expansion of these bike/ped networks should be pursued to ensure mobility options for all travelers.

Project and System Improvement Evaluation

Introduction

The recommended projects and improvements of the plan represent a significant effort to achieve better land use/transportation relationships and to place a priority on the improvement of the existing transportation system wherever feasible. Projects are categorized as short-term (1- 4 years); medium-term (5-12 years); or long-term (13-25 years) and presented by transportation mode.

The list of projects for consideration in the plan emerged from numerous sources:

- The Lebanon County Metropolitan Planning Organization FFY 2005-2008 Transportation Improvement Program (TIP)
- The Lebanon County Metropolitan Planning Organization FFY 2007-2010 Transportation Improvement Program (TIP)
- Harrisburg Area Transportation Study Metropolitan Planning Organization TIP and Long Range Transportation Plan (for Palmyra Borough and portions of North and South Londonderry Townships)
- PennDOT's 12-Year Transportation Program
- The Transportation System profile
- PennDOT District 8-0 and District 8-8 Maintenance Office
- Pennsylvania Turnpike Commission
- County of Lebanon Transit
- 123 key person1 interviews

- Transportation outreach meetings conducted in all of the county’s municipalities
- The six “Forums for Our Future” meetings held in July 2005
- Municipal surveys conducted as part of the comprehensive plan outreach
- Newspaper and Website Surveys in January 2006
- Pennsylvania State Police
- Lebanon County Comprehensive Plan Task Force
- Municipal Workshops and Public Open House events – 10 in May/June 2007
- Susquehanna Regional Transportation Partnership
- SC PA Regional Goods Movement Study
- TV, newspaper, and radio information and outreach, including Radio Omega (local Hispanic radio station)

Project Prioritization Process

Beginning in 1991, the United States Department of Transportation (USDOT) has required that all long range transportation plans are “fiscally constrained,” meaning that the funding for the projects identified in the plan must be reasonably available. For the Lebanon County Long Range Transportation Plan, the total potential cost of all candidate projects far exceeded the amount of projected funding available. Funding limitations and practical realities require that transportation improvements be prioritized. As a result, a set of evaluation criteria based on the Vision, Goals and Policy Statement were applied to the large list of candidate projects and improvements to comply with the fiscal constraint provisions of the USDOT statewide and metropolitan transportation planning regulations.²

Methodology for Evaluating Candidate Improvements

The selection process that produced the list of recommended projects and improvements was developed to balance the variety of community concerns in a clear and defensible manner with an emphasis on system preservation and local public support. The methodology is designed to be used for future plan updates as well.

There are six steps to the project selection process:

- a. Inclusion of previously-programmed projects and improvements.** The LEBCO MPO TIP, the PennDOT 12-Year Transportation Program, the HATS MPO TIP and the HATS Long Range Transportation Plan all contain projects that have already been screened through an approved federally-endorsed, comprehensive process and will be “grandfathered” into the Lebanon County LRTP. The current version of the LEBCO MPO FFY 2007 TIP is included in the references section at the end of the Transportation Plan.
- b. Application of vision, goals and policy statement to the Candidate Projects.** The list of candidate LRTP projects were evaluated to ensure compliance with the vision, goals and the policy statement described in the Introduction. This process

² 23 CFR 450.322(b)(11)

- places a priority on projects that enhance the operation of the current system and enjoy a significant level of local support to ease project implementation and produced the draft list of LRTP preferred projects.
- c. Application of Revenue Projections.** In order to plan and prioritize needs effectively, there must be a common understanding of the projected financial resources available over the 25-year planning horizon. Existing revenue sources include:
- PennDOT
 - Federal Highway Administration
 - Federal Transit Administration
 - Pennsylvania Department of Conservation and Natural Resources
 - Municipal contributions
 - Private sector contributions
- d. Public Review of the Draft Long Range Transportation Plan.** Throughout the development of the Lebanon County Long Range Transportation Plan, the public and representatives of the public had the opportunity to meet with MPO staff at a variety of public meetings and other concurrent events linked to the Lebanon County Comprehensive Plan effort. The plan’s public outreach efforts are described under the Public Outreach, Stakeholder Review and Environmental Justice Compliance section.
- e. Environmental Justice Review.** As a subset of the public review process, the Federal Highway Administration and Federal Transit Administration require that Long Range Transportation Planning processes are inclusive and that input from traditionally underserved and underrepresented groups be pursued. The Lebanon County LRTP development process included a specific effort to involve all stakeholders as part of the public review strategy in compliance with FHWA and FTA guidance with Title VI/Environmental Justice guidance. The plan’s public outreach efforts to the Environmental Justice communities are described under the Public Outreach, Stakeholder Review and Environmental Justice Compliance section.

LRTP Recommended Projects and Strategies

Based upon the LRTP project and system improvement evaluation criteria, as well as public and stakeholder input and review, the following seven charts identify Lebanon County MPO’s regional priorities by type of mode. These project lists represent Lebanon County’s long range vision for transportation enhancements based on the Vision, Goals and Policy Statement identified for this LRTP and complies with the guidance and requirements of USDOT and PennDOT. A list of proposed studies to help identify future needs and projects for subsequent plan updates is included at the end of this section.

Projects and other strategies relevant to Lebanon County that have appeared in other PennDOT- or USDOT-approved documents, such as the PennDOT 12-Year Program, the Harrisburg Area Transportation Study LRTP and the Lebanon County MPO Transportation Improvement Program (TIP), are included.

Every FFY 2007 – 2010 Transportation Improvement Program (TIP) project and line item is included in the plan and identified as a TIP project. Locations of major 2007-2010 TIP projects are illustrated in Figure 6-5 in the chapter references.

The plan also includes short-term (1-4 years), medium-term (5-12 years) and long-term (13-25 years) projects and strategies to advance steady progress toward short, medium and long range system goals. These project groupings are distinguished by the following color coding:

2007-2010 TIP Projects*
Short-Term (1-4 years)
Medium-Term (5-12 years)
Long-Term (13-25 years)

* As presented in the June 2006 LRTP. The September 10, 2007 TIP listing is included in the Reference Tables Section. Contact the MPO staff for current TIP listing.

The list of potential projects is expected to expand significantly during future plan updates. This inaugural LRTP does not contain any line items or placeholders beyond the 2007 – 2010 Transportation Improvement Program to stand in for actual projects to be identified as future needs are revealed through further studies and system evaluations. As a result, the plan has additional financial capacity in the medium-term and long-term elements.

Highway

The LEBCO MPO LRTP identifies \$67,835,000 in highway/roadway-related improvements over the 25-year span of the Long Range Transportation Plan which includes programmed projects, new projects and proposed studies. Additional highway projects will emerge and be included in the plan as studies are completed and as trends/conditions require. For example, the new Lancaster/Lebanon Pennsylvania Turnpike Interchange and the growing traffic in this portion of PA Route 72 may require highway capacity improvements in the future.



Table 6-3 Highway Improvements

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Congested Corridor Improvement Program, Annville/Cleona and Palmyra/ N. Londonderry	Signal improvements at key locations and related intersection and roadway improvements along US Route 422	Programmed (TIP) Final Design	\$300,000	TIP
2007 - 2010 CMAQ Line Item	Line Item for FFY 2007	Programmed (TIP) Construction	\$1,045,599	TIP
Susquehanna Regional Transportation Partnership (SRTP), LEBCO MPO "Fair Share"	LEBCO MPO portion of the 2006-2007 SRTP Budget (CMAQ Funds)	Programmed (TIP) Construction	\$67,401	TIP
Susquehanna Regional Transportation Partnership (SRTP), LEBCO MPO "Fair Share"	LEBCO MPO portion of the 2007-2008 SRTP Budget (CMAQ Funds)	Programmed (TIP) Construction	\$67,401	TIP
2007 - 2010 CMAQ Line Item	Line Item for FFY 2008	Programmed (TIP) Construction	\$1,053,599	TIP
2007 - 2010 CMAQ Line Item	Line Item for FFY 2009	Programmed (TIP) Construction	\$1,143,000	TIP
2007 - 2010 CMAQ Line Item	Line Item for FFY 2010	Programmed (TIP) Construction	\$1,143,000	TIP
2007 - 2010 Safety Reserve	Line Item for FFY 2007 (HSIP Funds)	Programmed (TIP) Construction	\$601,000	TIP
2007 - 2010 Safety Reserve	Line Item for FFY 2008 (HSIP Funds)	Programmed (TIP) Construction	\$608,000	TIP
2007 - 2010 Safety Reserve	Line Item for FFY 2009 (HSIP Funds)	Programmed (TIP) Construction	\$622,000	TIP
2007 - 2010 Safety Reserve	Line Item for FFY 2010 (HSIP Funds)	Programmed (TIP) Construction	\$622,000	TIP
Project Delivery Assistance to PennDOT	Consultant assistance with preliminary engineering activities on programmed TIP projects (A-581 Funds in FFY 2007)	Programmed (TIP) Pre-Engineering	\$150,000	TIP

• Long Range Plan Projects •

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
2007 - 2010 RRX Line Item	Line Item for FFY 2007	Programmed (TIP) Construction	\$133,000	TIP
2007 - 2010 RRX Line Item	Line Item for FFY 2008	Programmed (TIP) Construction	\$133,000	TIP
2007 - 2010 RRX Line Item	Line Item for FFY 2009	Programmed (TIP) Construction	\$133,000	TIP
2007 - 2010 RRX Line Item	Line Item for FFY 2010	Programmed (TIP) Construction	\$132,000	TIP
US Route 22 (Allentown Boulevard) Resurfacing (A-581 Funds in FFY 2007, 2008 and 2009)	Resurfacing, shoulder construction, guide rail replacement, drainage, median barrier installation and other safety improvements from Dauphin County Line to PA Route 934 in East Hanover Twp.	Programmed (TIP) Construction	\$9,658,000	TIP
Ironmaster Road	Roadway resurfacing and other improvements (STP Funds in FFY 2007)	Programmed (TIP) Construction	\$2,000,000	TIP
2007 - 2010 HRST Reserve	Miscellaneous highway restoration work in Lebanon County in FFY 2008 with STP Funds	Programmed (TIP) Construction	\$2,000,000	TIP
Schaefferstown Bypass (PA Route 501)	Design, ROW and Utilities in FFY 2007 with STP and SXF Funds	Programmed (TIP) All Phases	\$1,250,000	TIP
Schaefferstown Bypass (PA Route 501)	ROW Phase in FFY 2008 with STP Funds	Programmed (TIP) ROW	\$644,000	TIP
Schaefferstown Bypass (PA Route 501)	ROW and Construction Phases in FFY 2009 with STP and SXF Funds	Programmed (TIP) ROW & Construction	\$7,625,000	TIP
Schaefferstown Bypass (PA Route 501)	Construction Phase in FFY 2010 with STP Funds	Programmed (TIP) Construction	\$1,756,000	TIP

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Campbelltown Connector (Construct new roadway from Lingle Avenue to Forge Road in South Londonderry Township) (HATS)	Construction Phase in FFY 2007 (HATS funding)(dollars not included in the tables)	Programmed (HATS TIP) Construction	(\$4,315,000)	TIP
US Route 422/Lingle Avenue Intersection Improvement in Palmyra Borough (HATS)	Intersection Improvement in FFY 2007 and FFY 2008; final design, utilities/ROW and construction (HATS funding)(dollars not included in the tables)	Programmed (HATS TIP) All phases	(\$7,900,000)	TIP
		Subtotal	\$32,265,000	
NEW LONG RANGE TRANSPORTATION PLAN PROJECTS				
11 th Avenue Railroad Crossing Safety Improvements in City of Lebanon and N. Lebanon Township	Mandated PUC improvements	Plan Project All Phases	\$120,000 (S)	Short
Ramona Road Railroad Crossing Safety Improvements in Jackson Township	Install gates ("crossbucks") and other safety related equipment	Plan Project All Phases	\$110,000 (S)	Short
Signal installation and intersection improvements at Crestview Drive and PA Route 72 in North Cornwall Township	Install new signal and make necessary channelization and roadway improvements	Plan Project All Phases	\$500,000 (S)	Short
Install left-turn phases in traffic signals for PA Route 934 traffic at US Route 422 intersection in Annville	Intersection improvement at PA Route 934 and US Route 422 in Annville Township	Plan Project All Phases	\$100,000 (S)	Short
Intersection improvements at PA Route 419 and PA Route 72 in the Village of Quentin	Channelization, left-turning lanes and revised signal timing at 419/72 intersection in West Cornwall Township	Plan Project All Phases	\$690,000 (S)	Short

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Provide a left-turn lane at Wilhelm Avenue and Cornwall Road (SR 2001)	Improve channelization on Wilhelm Avenue in the City of Lebanon	Plan Project All Phases	\$385,000 (S)	Short
PA Route 241 Safety Improvements in N. Cornwall Township	Improve roadway alignment and install centerline and shoulder "rumble" strips and/or guiderail at key locations from the City of Lebanon to US Route 322	Plan Project All Phases	\$750,000 (S)	Short
PA Route 72 and Fisher Road (SR 4020) intersection improvements in Lickdale, Union Township	Widen intersection, improve turning lanes, upgrade traffic signals to accommodate increased traffic and high percentage of truck traffic	Plan Project All Phases	\$1,300,000 (S)	Short
Safety improvements at PA Route 343 and US Route 22 in Bethel Township	Install safety improvements to make traffic aware of upcoming light, south of the Village of Fredericksburg	Plan Project All Phases	\$250,000 (S)	Short
Intersection improvement at Jonestown Road (old Route 22) and PA Route 72 in Union Township	Improve channelization, advance signal phase for left turns, and streetscape improvements for pedestrian safety	Plan Project All Phases	\$1,175,000 (M)	Medium
Congestion and Access Management Study on PA Route 72 from Ebenezer south to US Route 322	Congestion and Access Management Study for North Lebanon Township, City of Lebanon, North Cornwall Township and Cornwall Borough	Candidate UPWP Study	\$50,000 (M)	Medium

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Install signal and left turn lanes at PA Route 343 (North 7th Street) and Kimmerlings Road/Kochenderfer Road in North Lebanon Township	Install new signal and other needed intersection improvements, possibly sight distance on 343	Plan Project All Phases	\$950,000 (M)	Medium
Intersection improvement at Cornwall Road (SR 2001) and Rocherty Road (SR 2002)	Improve channelization and possible new demand-actuated signal installation in North Cornwall Township	Plan Project All Phases	\$530,000 (M)	Medium
Intersection improvement at Prescott Road (SR 2005) and US Route 422 in North Lebanon Township	Improve channelization and possible new demand-actuated signal installation in North Lebanon Township	Plan Project All Phases	\$525,000 (M)	Medium
US Route 422 Intersection improvements at PA Route 501 and PA Route 645 in Jackson Township	Improve channelization and turning movements at both locations; consider signal interconnection	Plan Project All Phases	\$1,600,000 (M)	Medium
Intersection improvements at PA Route 501 and Hergelrode Drive in Jackson Township	Reduce curve and improve sight distance at hard curve, south of Myerstown	Plan Project All Phases	\$1,285,000 (M)	Medium
I-78/PA Route 72 Point of Access Study in Union Township	Point of Access (POA) Study for potential interchange between I-78 and PA Route 72 in Union Township	Candidate Study	\$750,000 (L)	Long
Construct full interchange between US Route 22 and I-78 in Bethel Township	Current half interchange needs to be upgraded to a full interchange for current and future traffic patterns	Plan Project All Phases	\$24,500,000 (L)	Long
		Subtotal	\$35,570,000	
		TOTAL	\$67,835,000	

Bridge

The LEBCO MPO LRTP identifies \$51,282,678 in bridge-related improvements over the 25-year span of the Long Range Transportation Plan which includes programmed projects and new projects.



Table 6-4 Bridge Improvements

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Inwood Iron Bridge replacement in Union and Swatara Townships	Final Design in FFY 2008	Programmed (TIP) Final Design	\$210,000	TIP
Inwood Iron Bridge replacement in Union and Swatara Townships	Utilities and ROW in FFY 2008	Programmed (TIP) Utilities & ROW	\$30,000	TIP
Inwood Iron Bridge replacement in Union and Swatara Townships	Construction in FFY 2009 and 2010	Programmed (TIP) Construction	\$1,925,000	TIP
Chestnut Street Bridge replacement in N. Cornwall Township	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre. Engineering	\$176,000	TIP
Chestnut Street Bridge replacement in N. Cornwall Township	Final Design in FFY 2008	Programmed (TIP) Final Design	\$200,000	TIP
Chestnut Street Bridge replacement in N. Cornwall Township	Utilities and ROW in FFY 2008	Programmed (TIP) Utilities & ROW	\$30,000	TIP
Chestnut Street Bridge replacement in N. Cornwall Township	Construction in FFY 2009 and 2010	Programmed (TIP) Construction	\$1,204,000	TIP
9 th & 10 th Streets Bridges, City of Lebanon, new bridges on PA Route 72 over Norfolk Southern	ROW in FFY 2007	Programmed (TIP) ROW	\$604,660	TIP
9 th & 10 th Streets Bridges, City of Lebanon, new bridges on PA Route 72 over Norfolk Southern	Construction in FFY 2009 (SXF Funds and match)	Programmed (TIP) Construction	\$8,000,000	TIP

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
9 th & 10 th Streets Bridges, City of Lebanon, new bridges on PA Route 72 over Norfolk Southern	Construction in FFY 2010 (NHS Funds and match)	Programmed (TIP) Construction	\$7,014,011	TIP
Tremont Bridge removal (PA Route 72) in Swatara Township over abandoned RR	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre. Engineering	\$222,695	TIP
Tremont Bridge removal (PA Route 72) in Swatara Township over abandoned RR	Final Design in FFY 2009	Programmed (TIP) Final Design	\$237,690	TIP
Tremont Bridge removal (PA Route 72) in Swatara Township over abandoned RR	Utilities and ROW in FFY 2009 and 2010	Programmed (TIP) Utilities & ROW	\$210,000	TIP
Middle Creek Tributary Bridge (PA Route 897) replacement in Heidelberg Township	Construction in FFY 2007 (STP Funds)	Programmed (TIP) Construction	\$410,000	TIP
Union Road Bridge (SR 1009) replacement in Bethel Township	Final Design in FFY 2009 and 2010	Programmed (TIP) Final Design	\$156,080	TIP
Union Road Bridge (SR 1009) replacement in Bethel Township	Utilities and ROW in FFY 2010	Programmed (TIP) Utilities & ROW	\$8,000	TIP
Mount Zion Road Bridge (SR 1011) rehabilitation in Bethel Township	Final Design in FFY 2009 and 2010	Programmed (TIP) Final Design	\$318,715	TIP
Mount Zion Road Bridge (SR 1011) rehabilitation in Bethel Township	Utilities and ROW in FFY 2010	Programmed (TIP) Utilities & ROW	\$33,000	TIP
Furnace Road Bridge (SR 2014) rehabilitation over Mill Creek in Millcreek Township	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre. Engineering	\$262,253	TIP
Furnace Road Bridge (SR 2014) rehabilitation over Mill Creek in Millcreek Township	Final Design in FFY 2009	Programmed (TIP) Final Design	\$159,395	TIP

• Long Range Plan Projects •

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Furnace Road Bridge (SR 2014) rehabilitation over Mill Creek in Millcreek Township	Utilities and ROW in FFY 2009	Programmed (TIP) Utilities & ROW	\$8,000	TIP
Furnace Road Bridge (SR 2014) rehabilitation over Mill Creek in Millcreek Township	Construction in FFY 2010	Programmed (TIP) Construction	\$816,170	TIP
Furnace Road Bridges (2) (SR 2014) replacement over Mill Creek in Millcreek Township	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre. Engineering	\$351,344	TIP
Furnace Road Bridges (2) (SR 2014) replacement over Mill Creek in Millcreek Township	Final Design in FFY 2009	Programmed (TIP) Final Design	\$253,777	TIP
Furnace Road Bridges (2) (SR 2014) replacement over Mill Creek in Millcreek Township	Utilities and ROW in FFY 2009	Programmed (TIP) Utilities & ROW	\$6,000	TIP
Furnace Road Bridges (2) (SR 2014) replacement over Mill Creek in Millcreek Township	Partial Construction in FFY 2010	Programmed (TIP) Construction	\$444,183	TIP
Mill Street Bridges (2) (SR 3023) replacement over Quittapahilla Creek in N. Cornwall Township	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre. Engineering	\$489,785	TIP
Mill Street Bridges (2) (SR 3023) replacement over Quittapahilla Creek in N. Cornwall Township	Final Design in FFY 2009 and 2010	Programmed (TIP) Final Design	\$329,229	TIP
Mill Street Bridges (2) (SR 3023) replacement over Quittapahilla Creek in N. Cornwall Township	Utilities and ROW in FFY 2009 and 2010	Programmed (TIP) Utilities & ROW	\$22,000	TIP

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Lindley Murray Road Bridge (SR 4013) replacement over Raccoon Creek in East Hanover Township	Preliminary Engineering in FFY 2007	Programmed (TIP) Pre-Engineering	\$284,266	TIP
Lindley Murray Road Bridge (SR 4013) replacement over Raccoon Creek in East Hanover Township	Final Design in FFY 2009 and 2010	Programmed (TIP) Final Design	\$343,711	TIP
Lindley Murray Road Bridge (SR 4013) replacement over Raccoon Creek in East Hanover Township	Utilities and ROW in FFY 2009 and 2010	Programmed (TIP) Utilities & ROW	\$33,000	TIP
Blacks Bridge Road Bridge (SR 4014) replacement over Swatara Creek in East Hanover Township	Final Design in FFY 2009	Programmed (TIP) Final Design	\$314,487	TIP
Blacks Bridge Road Bridge (SR 4014) replacement over Swatara Creek in East Hanover Township	Utilities and ROW in FFY 2009	Programmed (TIP) Utilities & ROW	\$20,000	TIP
Clear Springs Road Bridge replacement over Quittapahilla Creek in N. Annville Township, and possible minor roadway realignment	Construction in FFY 2009	Programmed (TIP) Construction	\$1,680,000	TIP
		Subtotal	\$26,807,451	
NEW LONG RANGE TRANSPORTATION PLAN PROJECTS				
Tremont Bridge removal (PA Route 72) in Swatara Township over abandoned RR	Construction (bridge removal) in FFY 2011	Plan Project Construction	\$917,190 (S)	Short
Union Road Bridge (SR 1009) replacement in Bethel Township	Construction in FFY 2011	Plan Project Construction	\$664,690 (S)	Short

• Long Range Plan Projects •

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Mount Zion Road Bridge (SR 1011) rehabilitation in Bethel Township	Construction in FFY 2011	Plan Project Construction	\$1,157,490 (S)	Short
Furnace Road Bridges (2) (SR 2014) replacement over Mill Creek in Millcreek Township	Remaining Construction in FFY 2011	Plan Project Construction	\$887,187 (S)	Short
Mill Street Bridges (2) (SR 3023) replacement over Quittapahilla Creek in N. Cornwall Township	Construction in FFY 2011	Plan Project Construction	\$779,470 (S)	Short
Lindley Murray Road Bridge (SR 4013) replacement over Raccoon Creek in East Hanover Township	Construction in FFY 2011	Plan Project Construction	\$759,730 (S)	Short
Blacks Bridge Road Bridge (SR 4014) replacement over Swatara Creek in East Hanover Township	Construction in FFY 2011	Plan Project Construction	\$2,109,470 (S)	Short
South Spruce Street Bridge replacement over Quittapahilla Creek in Annville Township	Replace bridge and roadway realign	Plan Project All Phases	\$1,400,000 (S)	Short
North Lincoln Avenue Bridge replacement over Quittapahilla Creek in the City of Lebanon	Replace bridge with a pre-cast box culvert	Plan Project All Phases	\$1,000,000 (S)	Short
Coon Creek Road Bridge replacement over Coon Creek in E. Hanover Township	Bridge replacement (bridge closed from flood)	Plan Project All Phases	\$750,000 (S)	Short
Replace Zinns Mill Road Bridge over abandoned RR line in Borough of Cornwall	Bridge replacement east of Cornwall Road	Plan Project All Phases	\$900,000 (M)	Medium
Reilly Road Bridge replacement over Tulpehocken Creek in Jackson Township	Bridge replacement	Plan Project All Phases	\$1,100,000 (M)	Medium

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Yordy's Bridge Road bridge replacement over Swatara Creek in N. Annville Township	Bridge replacement	Plan Project All Phases	\$3,400,000 (M)	Medium
Greenpoint School Road Bridge replacement over Trout Run in Union Township	Bridge replacement	Plan Project All Phases	\$900,000 (M)	Medium
Shirksville Road Bridge replacement over Earlakill Run in Bethel Township	Bridge Replacement	Plan Project All Phases	\$800,000 (M)	Medium
Replace one-lane North 25 th Street Underpass of Norfolk Southern with a two-lane underpass and improve approaches and sight distance in West Lebanon Township	Bridge underpass and roadway realignment	Plan Project All Phases	\$6,950,000 (L)	Long
		Subtotal	\$24,475,227	
		TOTAL	\$51,282,678	

Interstate Management Program Funding

For informational purposes only, the following projects are being listed in the plan. These and other PennDOT “3R” (resurfacing, rehabilitation and reconstruction) projects in Lebanon County and elsewhere in the Commonwealth will be funded from PennDOT’s Interstate Management Program Fund. As Interstate projects get included in the Statewide Transportation Improvement Program (STIP) from Lebanon County, they were added to the LEBCO MPO LRTP for reference only, since the funding for these projects rests with PennDOT and the funding isn’t included in the below-listed financial tables. The following projects came from PennDOT. In the next update of the plan, a more robust list of projects will be jointly developed and the financial resources will be included in the plan.



Table 6-5 Interstate Management Improvements

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
I-81 Overhead Bridge Group	Bridge preservation activities on I-81 from I-78/81 split to Dauphin County Line Construction in FFY 2008	STIP Project All Phases	\$2,673,000	STIP
I-78 Mainline Bridges	Bridge preservation activities on I-78 from I-81 to Berks County Line Construction in FFY 2008	STIP Project Construction	\$3,490,000	STIP
I-78 Overhead Bridges	Bridge rehabilitations from I-78/81 split to Berks County Line Construction in FFY 2007	STIP Project Construction	\$2,095,000	STIP
		Subtotal	\$8,258,000	
NEW LONG RANGE TRANSPORTATION PLAN PROJECTS				
I-78 Preventative Bridge Maintenance	Bridge preventative maintenance on I-78 in Lebanon County	Plan Project All Phases	\$4,500,000 (S)	Short
I-78 Overhead Bridges Rehabilitation	Bridge rehabilitation on I-78 from 78/81 split to Berks County Line	Plan Project All Phases	\$3,190,000 (M)	Medium
		Subtotal	\$7,690,000	
			TOTAL	\$15,948,000

Transit

The LEBCO MPO LRTP identifies \$11,922,116 in transit-related improvements over the 25-year span of the Long Range Transportation Plan which includes programmed projects, new projects and proposed studies.



Table 6-6 Transit Improvements

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Purchase Vehicle for COLT	Purchase one small (22-passenger) vehicle for COLT in FFY 2007	Programmed (TIP) Construction	\$300,000	TIP
FFY 2007 Operating Assistance	Federal Fiscal Year 2007 operating assistance for COLT	Programmed (TIP) Construction	\$1,530,279	TIP
Auto Stop Announce System	SXF (earmark) funding in FFY 2007	Programmed (TIP) Construction	\$375,000	TIP
Purchase Two Paratransit Vehicles for COLT	Purchase two paratransit vehicles (vans) for COLT in FFY 2007	Programmed (TIP) Construction	\$220,000	TIP
Purchase Two Vehicles for COLT	Purchase two small (22-passenger) vehicles for COLT in FFY 2008	Programmed (TIP) Construction	\$600,000	TIP
FFY 2008 Operating Assistance	Federal Fiscal Year 2008 operating assistance for COLT	Programmed (TIP) Construction	\$1,595,279	TIP
Purchase Two Vehicles for COLT	Purchase two small (22-passenger) vehicles for COLT in FFY 2009	Programmed (TIP) Construction	\$600,000	TIP
FFY 2009 Operating Assistance	Federal Fiscal Year 2009 operating assistance for COLT	Programmed (TIP) Construction	\$1,648,279	TIP
Purchase Two Vehicles for COLT	Purchase two small (22-passenger) vehicles for COLT in FFY 2010	Programmed (TIP) Construction	\$600,000	TIP
FFY 2010 Operating Assistance	Federal Fiscal Year 2010 operating assistance for COLT	Programmed (TIP) Construction	\$1,648,279	TIP
		Subtotal	\$9,117,116	

• Long Range Plan Projects •

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
Purchase Vehicle for COLT	Purchase one small (22-passenger) vehicle for COLT in FFY 2007	Programmed (TIP) Construction	\$300,000	TIP
FFY 2007 Operating Assistance	Federal Fiscal Year 2007 operating assistance for COLT	Programmed (TIP) Construction	\$1,530,279	TIP
NEW LONG RANGE TRANSPORTATION PLAN PROJECTS				
Conduct Marketing Study for COLT	Hire a consultant to develop a marketing plan for COLT	Plan Study	\$75,000 (S)	Short
Conduct Transit Development Plan for COLT	Hire a consultant to develop a transit development plan for COLT	Plan Study	\$75,000 (S)	Short
Lease Berth at Hershey Intermodal Center	Lease space for COLT operations	Plan Project Construction	\$150,000 (S)	Short
Purchase and Install New Security System	Install new system at Schneider Drive facility	Plan/ Project Construction	\$80,000 (M)	Medium
Repair Fuel Tank Cover	Repair cover at Willow Street facility	Plan/Project Construction	\$50,000 (M)	Medium
Pavement Sealing	Seal pavement at Willow Street facility	Plan Project Construction	\$100,000 (M)	Medium
Replace Two Roofs	Replace roofs at Willow Street facility	Plan Project Construction	\$350,000 (M)	Medium
Install New Air Conditioning Unit	Install AC at Willow Street facility	Plan Project Construction	\$100,000 (M)	Medium
Purchase Shop Maintenance Equipment	Purchase maintenance equipment	Plan Project Construction	\$175,000 (M)	Medium
Implement Homeland Security Measures	Implement measures	Plan Project Construction	\$500,000 (M)	Medium
Purchase Lift Equipment	Purchase equipment for Schneider Drive facility	Plan Project Construction	\$200,000 (M)	Medium
Purchase and Install Bus Announcing System	Install system at key COLT facilities in the region	Plan Project Construction	\$400,000 (M)	Medium
Purchase Wrecking/Towing Equipment	Purchase equipment	Plan Project Construction	\$550,000 (M)	Medium
		Subtotal	\$2,805,000	
		TOTAL	\$11,922,116	

Non-Motorized

The LEBCO MPO LRTP identifies \$3,148,177 in non-motorized-related improvements over the 25-year span of the Long Range Transportation Plan which includes programmed projects, line items and new projects. Projects in this category include bicycle and pedestrian improvements, the Transportation Enhancements/Home Town Streets/Safe Routes to School federal reimbursement program. Discretionary Transportation Enhancements funds are also available from PennDOT if a project has regional/statewide significance, and it can not be funded from the planning partner's base allocation of enhancement funds. Please note that carry-over Transportation Enhancement projects (Lickdale Streetscape and Lebanon Safe Sidewalks, for example) are now listed on an auxiliary list off of the 2007-2010 Transportation Improvement Program (TIP); when these projects are ready for construction, the funds from the line items will be used accordingly.

Other bike/ped improvements that have not been fully evaluated but appear to have significant merit are (1) assisting with the expansion of the established facilities in the greater Palmyra area that connect to Derry Township facilities; (2) extension of the bike/ped network in South Annville Township near the high school, the greenway and new development; and (3) pedestrian safety improvements in downtown Palmyra and Annville. These are probably all medium-term improvements, but some additional analysis will be needed to quantify the improvements and costs.

Table 6-7 Non-Motorized Improvements

<i>Improvement</i>	<i>Description</i>	<i>Status</i>	<i>Estimated Total Cost</i>	<i>Time Frame of Improvement</i>
TE/HTS/SRS Reserve	STE-Funded Reserve Line Item for FFY 2007	Programmed (TIP) Construction	\$242,000	TIP
TE/HTS/SRS Reserve	STE-Funded Reserve Line Item for FFY 2008	Programmed (TIP) Construction	\$250,000	TIP
TE/HTS/SRS Reserve	STE-Funded Reserve Line Item for FFY 2009	Programmed (TIP) Construction	\$259,000	TIP
TE/HTS/SRS Reserve	STE-Funded Reserve Line Item for FFY 2010	Programmed (TIP) Construction	\$259,000	TIP
		Subtotal	\$1,010,000	
LONG RANGE TRANSPORTATION PLAN PROJECTS				
Lebanon Valley Rail Trail, Phase 4	2.5 mile extension of the trail from the Expo Center into downtown Lebanon. (TE Discretionary Funds obtained)	Plan Project Construction	\$575,000 (S)	Short
South Lebanon Township Trail Project, Phase 1	1.0 mile segment of trail; Phase 1 is the western section (TE Discretionary Funds obtained)	Plan Project Construction	\$179,400 (S)	Short

Improvement	Description	Status	Estimated Total Cost	Time Frame of Improvement
North Lebanon School District and Bethel Township Safe Routes to School projects (3)	Wellness and fitness trail/SRS near the high school and middle school; SRS for other N. Lebanon School District properties; and Bethel Twp. sidewalks to promote walking to the middle/high schools	Plan Project Construction	\$165,277 (S)	Short
Jonestown Borough Safe Routes to School projects (2)	Paving Jonestown Community Park trail and constructing a sidewalk on the west side of S. Lancaster Street to help children walk/bicycle to the elementary school building	Plan Project Construction	\$218,500 (S)	Short
South Lebanon Township Trail Project, Phase 2	Phase 2 is the eastern section	Plan Project Construction	\$250,000 (M)	Medium
Various Extensions and Connections to the Lebanon Valley Rail Trail	Spur and feeder routes	Plan Project Construction	\$750,000	Long
		Subtotal	\$2,138,177	
		TOTAL	\$3,148,177	

Aviation

The LEBCO MPO LRTP identifies \$635,000 in aviation-related improvements over the 25-year span of the Long Range Transportation Plan. It is possible that additional projects may be identified in future years to help municipalities comply with PennDOT Hazard Zoning rules, which require compatible land uses adjacent to airports.



Table 6-8 Aviation Improvements

<i>Improvement</i>	<i>Description</i>	<i>Status</i>	<i>Estimated Total Cost</i>	<i>Time Frame of Improvement</i>
Improve/expand airport operations and improve safety	Improve/expand airport operations and improve safety at Air Deck Airport.	Programmed (TIP/12 Year Program) All Phases	\$135,000	TIP
		Subtotal	\$135,000	
LONG RANGE TRANSPORTATION PLAN PROJECT				
Conduct aviation study	Conduct countywide aviation study	Plan Study	\$500,000 (M)	Medium
		Subtotal	\$500,000	
TOTAL			\$635,000	

Rail Freight

The LEBCO MPO LRTP identifies \$5,125,000 in rail freight-related studies and improvements over the 25-year span of the Long Range Transportation Plan. In future years this should be an emphasis area since more data and information will be available from the SC PA Goods Movement Study. The MPO participated in Operation Lifesaver activities in calendar year 2007, which may also identify other needed analysis, studies and/or projects.



Table 6-9 Rail Freight Improvements

<i>Improvement</i>	<i>Description</i>	<i>Status</i>	<i>Estimated Total Cost</i>	<i>Time Frame of Improvement</i>
LONG RANGE TRANSPORTATION PLAN PROJECTS				
Conduct countywide automated horn system study	Work with all key partners and stakeholders to perform an automated horn feasibility study	Plan Study	\$375,000 (S)	Short
Install automated horn system for all City of Lebanon RR/highway grade crossings	Work with Norfolk Southern to install automated horn system in the City of Lebanon	Plan Project All Phases	\$2,500,000 (M)	Medium
Install automated horn system for the remainder of Lebanon County's RR/highway grade crossings	Work with Norfolk Southern to install automated horn system across the remainder of Lebanon County	Plan Project All Phases	\$2,250,000 (M)	Medium
TOTAL			\$5,125,000	

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) encompasses a broad range of technologies that help monitor and manage traffic flow, reduce congestion, enhance safety and provide alternative routes for travelers. Examples include on-board navigation systems; automated rail crossing safety enhancements; electronic toll payment systems (EZ-Pass); integrated signal systems; traffic video/control technologies; and variable message signs.



The LEBCO MPO LRTP identifies **\$6,650,000** in ITS-related studies and improvements over the 25-year span of the Long Range Transportation Plan. In the near future, additional coordination will be taking place with local and county emergency management services to determine if ITS solutions are needed in this arena.

Table 6-10 Intelligent Transportation Systems Improvements

<i>Improvement</i>	<i>Description</i>	<i>Status</i>	<i>Estimated Total Cost</i>	<i>Time Frame of Improvement</i>
LONG RANGE TRANSPORTATION PLAN PROJECTS				
TSOP for Lebanon County	Conduct a study to develop a Transportation System Operations Plan (TSOP) for Lebanon County	Plan Study	\$400,000 (M)	Medium
Incident management system on Interstate highways in Lebanon County	Detour and advanced warning systems on interstate highways in Lebanon County	Plan Project All Phases	\$3,500,000 (M)	Medium
Incident management system on other major routes in Lebanon County	Detour and advanced warning system on other major highways in Lebanon County	Plan Project All Phases	\$2,750,000 (M)	Medium
TOTAL			\$6,650,000	

Total Projected Needs

The LEBCO MPO LRTP identifies **\$146,597,971** in transportation improvements over the 25-year span of the plan. These estimated project costs are well below the projected revenue (**\$416,457,000**) for this same time period. Again, line items or place holders for groupings of projects (e.g., bridges, TE projects, transit operating assistance, etc.) beyond the TIP could have been added to the plan, but it was decided that doing so would be inappropriate, knowing the nature of the LEBCO MPO and the future studies that will follow that will better define the listing of long range projects. It is also important to remember that the Long Range Transportation Plan is not a funding program in and of itself. It sets the framework for the MPO to set project priorities and make difficult funding decisions when developing the biennial update of the Transportation Improvement Program.

Table 6-11 Total Projected Needs

Mode	Estimated Total Need
Highway	\$67,835,000
Bridge	\$51,282,678
Interstate 4R	(\$15,948,000)*
Transit	\$11,922,116
Non-Motorized	\$3,148,177
Aviation	\$635,000
Rail Freight	\$5,125,000
ITS	\$6,650,000
TOTAL	\$146,597,971
* Interstate maintenance projects and funds are shown for information purposes only. Funding is outside of the LEBCO MPO financial envelope and is not included in the above total. See earlier discussion.	

Ongoing and Future Studies/Initiatives

In addition to the studies identified above as part of the modal sections, additional ongoing and future studies/initiatives will identify proposed improvements to enhance mobility and the economic health of Lebanon County. Table 6-12 identifies current and future efforts that are likely to produce projects to be included in future updates of the LEBCO MPO Long Range Transportation Plan.

Further discussion of ongoing studies or efforts preparing to commence can be found in the Implementation section.

Table 6-12 Ongoing and Future Studies/Technical Analysis/Initiatives
to Support the Inclusion of Future Projects in the LEBCO MPO Long Range Transportation Plan

Name	Status
Susquehanna Regional Transportation Partnership / Commuter Services Initiatives	Ongoing in conjunction with SC PA MPOs and RPOs
8-County SC PA Goods Movement Study	Ongoing in conjunction with SC PA MPOs and RPOs
Congestion Management Processes (CMP) Planning	Began in March of 2006 and will be completed in the spring of 2008
Access Management Training and Access Management Studies in Key Congested Corridors	Initial training took place in May of 2006; access management ordinances are now being developed for Lebanon County and North Lebanon and North Cornwall Townships
Work jointly with PennDOT on Interstate Management Program projects to be included in future LEBCO MPO LRTPs	Short-term activity (FFY 2007 thru FFY 2010)
Transportation System Operations Planning (TSOP) Study	Future studies may result from CMS planning; medium-term (FFY 2011 thru FFY 2018)
Point of Access (POA) Studies for New/Expanded Interstate Interchanges	Medium-term endeavor (FFY 2011 thru FFY 2018)
Student Drivers' Safety Programs	ELCO/N. Lebanon School Districts Program occurred in May of 2006; future programs will involve all Lebanon County School Districts
Highway Safety (HSIP) Planning	Included in FY 2006-2007 Unified Planning Work Program
LEBCO MPO-hired engineers to help with pre-construction phases of project development (local bridges and TE/HTS/SRS projects)	Short-term endeavor (FFY 2007 thru FFY 2010)
County-wide Highway/Rail Grade Crossing Feasibility Study for Automated Horn System	Short-term endeavor (FFY 2007 thru FFY 2010)
PA Route 117 Byway Corridor Management Plan	Short-term study will begin in July of 2006 and conclude in June of 2007
Bike/Ped Planning	Short-term activity (FFY 2007 thru FFY 2010)
Transit Development Plan for COLT	Short-term activity (FFY 2007 thru FFY 2010)
Transit Marketing Study for COLT	Short-term endeavor (FFY 2007 thru FFY 2010)
Feasibility Study of Route 422/322/72 Mini-Bypasses	Medium-term endeavor (FFY 2011 thru FFY 2018)
CORRIDORTwo Transit Service Feasibility Study	Study began in mid-2007
Others as needed, possibly including a Highway and Bridge Asset Management Study and an Aviation Needs Study	Short and medium-term endeavors (FFY 2007 thru FFY 2018)

Liquid Fuels Funding

The Lebanon County Commissioners with assistance from the Lebanon County Planning Department annually re-distribute some of the county Liquid Fuels Funds to municipalities that need additional funds to undertake projects beyond their base allocation of Liquid Fuels Funds. This re-distribution takes place in February and March. The program has become a source of funding outside of the federal and state funds in the LEBCO MPO Transportation Improvement Program (TIP). Local roads get repaired; drainage is improved; bridges are rehabilitated with these funds. In future years, some of these funds may get earmarked for regions of the county where the need is very great and where local financial resources are very limited. If any of the projects that get funded through this program are air quality significant, they will be added to the LEBCO MPO Long Range Transportation Plan and Transportation Improvement Program.



Transportation Systems Operations Plan Coordination

PennDOT's Transportation Systems Operations Plan (TSOP) is an effort aimed at developing a statewide operations program to look at and develop projects throughout the state through communication and exchange between PennDOT, its planning partners, and other key stakeholders.

PennDOT's guidance maintains that MPO Long Range Transportation Plans should look at projects that use or incorporate goals of this program which include strategies such as ITS (Intelligent Transportation Systems), Smart Transportation initiatives, and Project Right Sizing efforts.

The Lebanon County Long Range Transportation Plan has been developed to ensure compatibility with PennDOT's direction.

Financing the Future

Introduction

Federal regulations require that Long Range Transportation Plans include a financial plan to demonstrate that proposed investments are reasonable in the context of anticipated future revenues over the life of the plan. The finances for any Long Range Transportation Plan, therefore, should use past and current revenue streams to make future revenue projections, as detailed in the previous Project Prioritization section.

The Lebanon County Long Range Transportation Plan is fiscally constrained. The transportation investments proposed to meet the vision, goals and policy statement are consistent with revenue projections for the next 25 years.

The following information summarizes the methods for projecting future revenues, calculating future project/line item costs and reconciling the plan with future revenue projections.

Financial Assumptions

The revenue forecasts to follow are based upon a number of financial assumptions, as shown in Table 6-13. These assumptions have been developed by evaluating previous federal, state and local expenditures and the most recent relevant federal and state financial guidance.

Table 6-13 Financial Assumptions

Funding Source	Assumptions
Federal Highway and Transit Funds	<ul style="list-style-type: none"> • SAFETEA-LU Authorization Totals = \$286.4 billion nationwide • 19% increase over TEA-21 • Future Assumption is 18% increase over next six years (3% annually)
Federal Highway and Transit Splits	<ul style="list-style-type: none"> • Based upon SAFETEA-LU
Federal Highway and Transit Earmarks, Demonstration and Discretionary Programs	<ul style="list-style-type: none"> • Will be included in LRTP and TIP if supported by the ongoing transportation planning process and in compliance with fiscal constraint provisions and air quality conformity
Pennsylvania Share of Federal Program	<ul style="list-style-type: none"> • Based on percentage of national total (i.e., 4.5% for PA)
Federal STP Urban (STU) Funds	<ul style="list-style-type: none"> • When LEBCO MPO Becomes a TMA in mid-2008, 4.5% of the STU funds allocated to the Harrisburg MPO will be transferred to the LEBCO MPO beginning in FFY 2009
State Highway Funds	<ul style="list-style-type: none"> • Maintain the FFY 2007 – 2010 TIP funding levels/shares • 4% increase per year in Highway funding
State Transit Funds	<ul style="list-style-type: none"> • Maintain FFY 2007 – 2010 TIP funding levels/shares • No increase in PTAF and Act 3 funds are assumed • 16.67% state match for capital projects (and 3.33% local match for capital projects)
State Highway and Transit Splits	<ul style="list-style-type: none"> • Maintain the FFY 2007 – 2010 TIP funding levels/shares
Highway "Spike" Funds	<ul style="list-style-type: none"> • Continued PennDOT support for major capital projects like 9th & 10th Streets Bridges project, Schaefferstown Bypass and construction of a full interchange at I-78 and US Route 22
PennDOT Interstate Maintenance/State Matching Funds*	<ul style="list-style-type: none"> • Continued PennDOT support for the funding of projects like I-78 mainline bridge rehabilitation*
Regional, Local and/or Private Funds	<ul style="list-style-type: none"> • \$100,000.00 each FFY throughout the life of the plan to support local highway, bridge, TE/HTS/SRS, bike/ped and other projects • PennDOT bridge projects will have the appropriate local match (i.e., the 9th & 10th Streets Bridges project) • COLT capital projects will have the necessary 3.33% local share
<p>* PennDOT now manages the non-capacity adding Interstate projects from federal and state funds that are set aside in the new Interstate Management Program. PennDOT seeks input from the MPOs and RPOs in Pennsylvania before it selects the projects that are added to the Statewide Transportation Improvement Program (STIP).</p>	

Revenue Forecasts

Revenue forecasts were developed after a review of previous federal, state and local expenditures and likely future funding levels. Figures, as shown in Table 6-14, are presented in current 2006 dollars.

Table 6-14 Lebanon County MPO 2007-2030 Revenue Forecasts

<i>Mode</i>	<i>Estimated Funding Short-Term (2007 - 2010)</i>	<i>Estimated Funding Medium-Term (2011 - 2018)</i>	<i>Estimated Funding Long-Term (2019 - 2030)</i>	<i>Total</i>
Highway and Bridge	\$58,310,000	\$108,764,000	\$187,590,000	\$354,664,000
Transportation Enhancements	\$1,010,000	\$2,371,000	\$4,789,000	\$8,170,000
Transit	\$7,780,000	\$16,487,000	\$29,356,000	\$53,623,000
TOTAL	\$67,100,000	\$127,622,000	\$221,735,000	\$416,457,000

The four years of the short range element of the Financial Plan coincide with the 2007-2010 Transportation Improvement Program (TIP). The mid-range element coincides with the remainder of the Commonwealth’s Twelve Year Transportation Program. The balance of the financial plan covers the long range element or the “out years.”

Tables that provide the year-by-year details on the various highway, bridge and transit revenue projections are included in the references section at the end of the transportation plan. The first table contains the highway and bridge revenue forecast and the second table contains the transit revenue forecast. The FFY 2007 Transportation Improvement Plan is also included.

Other Term-Related Assumptions

Short-Term Element

The short-term element of the plan coincides with the current 2007-2010 Transportation Improvement Program (Federal Fiscal Years 2007, 2008, 2009 and 2010). The federal highway and bridge figures are based upon the pro-rated share of Pennsylvania’s allocations that are included in SAFETEA-LU. The same applies to the federal transit funds for COLT.

Funding allocations for highway, bridge, safety, air quality, urban, rail and/or transportation enhancement projects to the LEBCO MPO and all other MPOs and rural planning organizations (RPOs) for TIP development are done via formulas agreed to by all parties (MPOs, RPOs and PennDOT). This amounts to 80% of all federal and state highway and bridge funds coming to PennDOT.

Other Short-Term Assumptions:

- \$25 million in state highway funds per year (2007 – 2010) are reserved for economic development initiatives. These funds are distributed at the discretion of the Secretary of Transportation at PennDOT.
- \$25 million in federal highway funds per year (2007 – 2010) are flexed to transit in accordance with past agreements reached in conjunction with the enactment of Pennsylvania Act 3 of 1997.

- \$32.375 million in state and/or federal highway/bridge funds are reserved for various statewide items like state and local bridge inspections, environmental resource agencies project reviews, etc.
- A little more than \$1.5 billion in federal and state highway and bridge funds have also been set aside for work on the Interstate Highway System. PennDOT in consultation with the MPOs and RPOs decides where to spend this money over FFYs 2007, 2008, 2009 and 2010.
- PennDOT discretionary (“Spike”) funding is also set aside for very large projects across the Commonwealth. After the above mentioned set-asides are established, the balance of the 20% goes into this funding source that is distributed at the discretion of the Secretary of Transportation at PennDOT. This money is set aside for FFYs 2007, 2008, 2009 and 2010.
- Discretionary TE/HTS/SRS funding is also set aside for projects of regional and/or statewide significance. The Secretary of Transportation at PennDOT, several other state agencies and the Governor’s Office agree upon the distribution of these funds.
- The LEBCO MPO could receive funding from the above six sources of funds at any time over the next two years. Furthermore, Act 44 of 2007 modified transportation funding to create predictable, dedicated and inflation-sensitive funding for transit and other key transportation infrastructure; the allocations of this revised formula for the LEBCO MPO have yet to be determined but are a potential source of funding. If that happens, the Long Range Transportation Plan and the 2007 Transportation Improvement Program will be modified accordingly.
- Funding for transit projects in Pennsylvania comes from a combination of federal, state, local and/or private sources. Federal funding for COLT is provided from SAFETEA-LU. State funds are provided from formulas included in Act 26 of 1991 and amendments included in Act 3 of 1997. In addition, state capital budget funding is released annually for capital improvements.

Medium-Term Element

The mid-range element of the plan coincides with the second and third four year periods of the Commonwealth’s Twelve Year Transportation Program. It includes FFYs 2011 through 2018. Many of the assumptions previously mentioned have been applied to estimate revenue projections. Knowing that the LEBCO MPO Transportation Improvement Program (TIP) is updated every two years, including the financial projections, these new revenue estimates (when available) will be used to periodically update the plan’s financial assumptions. In doing so, the plan’s estimated revenue stream will be refreshed and updated.

Long-Term Element

The long-term element of the plan covers the remaining years of the plan (2019 through 2030). Many factors will influence these revenue projections over time, including the above mentioned TIP update cycles and new state and federal transportation

legislation. Again, as new developments in these areas happen, the plan’s revenue estimates will be updated.

Key Trends and Indicators as Identified in the Transportation System Profile

The *Transportation System Profile, Background Study #8* of the comprehensive plan, is an inventory of transportation facilities and an assessment of its capacity to serve its users. The profile includes historic and forecasted user demand for transportation facilities and a discussion of the needs and opportunities for transportation planning to sustain Lebanon County’s quality of life.

The profile contains detailed information about the Lebanon County transportation system and concludes with the identifications of a number of key trends for further consideration in the Long Range Transportation Plan. Table 6-2 on page 11 reproduces the table from the Transportation Profile to highlight the key trends observed in the profile. Table 6-15 below expands Table 6-2 to identify the selected action items or strategies to address the trends first highlighted in the profile. The purpose of Table 6-15 is to further link the proposed improvement actions identified in the plan with the system deficiencies revealed in the profile.

Table 6-15 Transportation Profile Key Trends and Indicators Plus LRTP Action Items

	Key Trends and Indicators for Additional Evaluation	LRTP Action Item
Highway, Roadway and Bridges	Traffic growth on the interstates I-81 and I-78 could bring additional goods movement-related and residential development to areas near interchanges.	I-78/PA Route 72 Point of Access Study in Union Township.
	Traffic growth on critical PA state roads, specifically US 322 in Cornwall, US 422 in Myerstown and PA 241 in South Londonderry reveal significant increases. These locations, and others throughout the county, need to be examined to determine whether capacity enhancements or other traffic control measures are necessary.	Lebanon County MPO UPWP included \$100,000 for a Congested Corridor Improvement Program to evaluate congestion on US 422 and PA 72. Development of a Countywide CMS is planned for 2008.
	Congestion management will dictate evaluation of highway corridors instead of individual highway segment projects.	Lebanon County MPO UPWP includes \$100,000 for a Congested Corridor Improvement Program to evaluate congestion on US 422 and PA 72. Development of a Countywide CMS is planned for 2008.
	Countywide population and employment growth will increase traffic throughout the system. Capacity, traffic congestion, pavement and bridge conditions and traffic signal operations will need to be examined to both ensure safety, efficiency and consistency with community character.	Lebanon County MPO UPWP includes \$100,000 for a Congested Corridor Improvement Program to evaluate congestion on US 422 and PA 72. Development of a Countywide CMS is planned for 2008.

	Key Trends and Indicators for Additional Evaluation	L RTP Action Item
Highway, etc.	High Occurrence Crash Locations must be evaluated to identify the reason for the high number of traffic incidents as well as any trends or conditions that will continue to compromise system safety.	Lebanon County MPO UPWP includes \$100,000 for a Congested Corridor Improvement Program to evaluate congestion on US 422 and PA 72. Development of a Countywide CMS is planned for 2008.
	Bridge conditions in the county must continue to improve.	TIP includes many projects to bring more Lebanon County bridges to sufficiency.
Transit	Both local and intercity transit is losing market share. Information is needed to clarify why this is occurring and what steps can reverse this trend.	Conduct Marketing Plan and Transit Development Plan for COLT; Business Plan started in July of 2007.
	The majority of minority and low-income residents are located in and around the City of Lebanon, where transit opportunities currently exist and may be more effectively enhanced.	Conduct Marketing Plan and Transit Development Plan for COLT; Business Plan started in July of 2007.
	The <i>CORRIDORtwo</i> Regional Rail would provide commuter rail or bus transit service connecting the City of Lebanon and Harrisburg via the Norfolk Southern Harrisburg Line. There is no approved schedule for design and construction of the project.	Continue to work with the Modern Transit Partnership and the Lebanon County municipalities as this project moves forward.
	The Susquehanna Regional Transportation Partnership is the primary agency that develops and promotes transportation options beyond the single occupancy vehicle.	Continue to work with the Susquehanna Regional Transportation Partnership to identify opportunities to provide additional mobility options to transportation system users.
Freight Rail	Traffic on Norfolk Southern's Harrisburg Line is expected to continue to grow.	Work with all key partners and stakeholders to conduct an automated horn feasibility study to reduce rail-vehicular conflicts.
	The 9 th & 10 th Street Bridges over Norfolk Southern project will remove two at-grade crossings within the City of Lebanon. These bridges will improve traffic flow and access for emergency vehicles.	ROW Funding for 9 th and 10 th Street Bridge Over Norfolk Southern Project has been secured; construction funding will be addressed in the 2009–2012 TIP.
	The installation of gates would enhance the safety of grade crossings countywide.	Gates for 11 th Avenue and Ramona Road grade crossings are the LEBCO MPO's top two priorities.
	Automated horns and other options should be investigated to address noise complaints while preserving safety at rail crossings.	Work with partners and stakeholders to conduct an automated horn feasibility study to reduce rail-vehicular conflicts and to make the railroad operations more community-friendly.
Aviation	Lebanon County has four privately-owned public use airports. The 2002 Lebanon County Airport Feasibility Study and Master Plan concluded that airport users are generally satisfied and that private airports meet their needs.	Conduct a countywide aviation study, if it becomes necessary.

	Key Trends and Indicators for Additional Evaluation	L RTP Action Item
Aviation	The closest major commercial airport is in Harrisburg (33 miles from the City of Lebanon). Further examinations are necessary to determine whether improved airport access should be a priority.	Conduct a countywide aviation study, if it becomes necessary.
Non-Motorized	Annville, Cleona, Lebanon, Palmyra, Myerstown, Richland, Schaefferstown and Jonestown are good examples of communities that have walkable and bike-friendly downtowns. Continued maintenance and expansion of these bike/ped networks should be pursued to ensure mobility options for all travelers.	Continue to solicit for Transportation Enhancements/Home Town Streets/Safe Routes to School projects, particularly those that conform with the Lebanon County Comprehensive Plan.

Public Involvement, Stakeholder Review and Environmental Justice

Introduction

The Lebanon County LRTP effort has emphasized the inclusion of public and stakeholder input throughout its creation. Outreach included individual meetings with 25 of the 26 municipalities within Lebanon County (not including Cold Spring Township, since it's largely state game lands and has no governing body) to solicit candidate projects and a host of public outreach sessions to gather input on the draft plan. In addition, the LRTP effort benefited from concurrent development of the Lebanon County Comprehensive Plan which has created additional opportunities to solicit public input and link land use and transportation planning in a real world way.

Public Involvement

Meaningful public involvement ensures that the communities most affected by the Long Range Transportation Plan have the opportunity to provide input at critical junctures throughout plan development and refinement. Community participation is critical to making the Lebanon County LRTP a successful document.

The Lebanon County MPO has solicited public input in numerous settings throughout the development of the plan. Public outreach activities have included:

- Six public forums to discuss the comprehensive plan and the Long Range Transportation Plan conducted in July 2005
- 25 individual municipal meetings
- Newspaper and Internet surveys conducted in January and February of 2006
- Draft LRTP Public Outreach sessions in April, May and June of 2006.
- May/June 2007 – 10 meetings for municipal officials and the general public

The draft plan was also presented at the Lebanon County MPO Technical Planning Committee and Policy Board meetings held on six separate occasions.

Stakeholder and Affected Party Review

In addition to input from the general public, the Lebanon County LRTP development process afforded the opportunity for local agencies, organizations, government officials and others affected to participate in identifying needs and determining the best future transportation improvements for Lebanon County. Special one-on-one meetings took place over the last three years.

On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The legislation expands the organizations to be consulted as part of the long range transportation planning process. While the adoption of this plan will precede the required Federal Highway Administration rulemaking to codify the metropolitan planning regulations, the Lebanon County MPO has consulted with FHWA and FTA to anticipate compliance with these new rules.

The groups specifically identified in SAFETEA-LU for Long Range Transportation Plan consultation include entities responsible for planned growth; economic development; environmental protection; natural resources; historic preservation; airport operations; freight movement; bicycle and pedestrian advocacy; land use management; and Native American Indian Tribes.

Planned Growth

With the objective to manage the effects of past growth and strengthen guidance for future community development and resource protection in mind, the LRTP was developed in conjunction with the Lebanon County Comprehensive Plan.

The Lebanon County Comprehensive Plan and the LEBCO MPO Long Range Transportation Plan will be the first county plan in Pennsylvania to take advantage of the tools listed below in crafting a vision and action plan that directs local, county, and state activities toward objectives that distinguish and benefit the county as a whole.



- Amendments to the [Municipalities Planning Code \(MPC\)](#) in 2000 gave new tools, authority and responsibility to local and county governments.
- More effective communication and coordination between state agencies and local government is being fostered.
- New investment and revitalization programs, resulting in part from [Governor Rendell's Stimulus Package](#), provide new tools and financial resources to both the public and private sectors.

Planned and well managed (“smart”) growth is the focus of both plans. This will take many forms, including but not limited to:

- Creating a range of housing opportunities and choices
- Promoting walkable communities
- Encouraging community and stakeholder collaboration
- Fostering distinctive areas with a strong sense of place
- Mixing land uses
- Making development decisions predictable, fair and cost-effective and coordinating land use and transportation decision-making
- Preserving open space, farmland, natural beauty and critical environmental features
- Providing a variety of transportation choices over time
- Directing development toward existing communities and where proper infrastructure exists
- Taking advantage of compact building design

Both the LRTP and the comprehensive plan were developed with significant consultation from local, regional and statewide entities. Key stakeholders consulted from the planned growth community include:

- Lebanon County Builders Association
- PennDOT’s Sound Land Use Planning Coordinator
- Lebanon County Housing and Redevelopment Authority
- Lebanon County Association of Realtors

Economic Development

The Lebanon County Comprehensive Plan and the LEBCO MPO Long Range Transportation Plan, as part of the joint development process, shared local economy and employment trends as part of the initial data collection effort. An Economic Development Plan will result when the comprehensive plan is finalized and adopted.

A goal of the comprehensive plan is to retain and expand existing businesses and attract new businesses that enhance the overall quality of life of county residents. Many of the comprehensive plan efforts to outreach to the economic development community included discussion on transportation strategies necessary to support and enhance the economic viability of Lebanon County.

Both plans were developed with significant consultation from local, regional and statewide entities. Key stakeholders consulted from the economic development community included:

- Lebanon County Expo Center
- Lebanon Valley Economic Development Corporation
- Lebanon Valley Chamber of Commerce
- Lebanon 2000, Main Street Program

Environmental Protection, Natural Resources and Historic Preservation

As part of the data collection effort for the Lebanon County Comprehensive Plan, profiles were developed for natural resources (water, agriculture and open spaces/greenways), cultural/historic resources, and other key county features. A Natural Resource Plan, a Historic Preservation Plan and an Open Space, Greenways and Recreation Plan will result when the comprehensive plan is finalized and adopted.

Goals, objectives, key recommendations and action items have been prepared for natural resources, recreation and cultural/historic preservation.

Both the LRTP and the comprehensive plan were developed with significant consultation from local, regional and statewide entities. Key stakeholders representing environmental protection, natural resources and historic preservation were:

- Rail to Trails Corporation
- Lebanon County Historical Society/Friends of the Union Canal
- Preservation Trust of Lebanon County
- Lebanon County Conservation District
- Penn State Cooperative Extension
- Pennsylvania Historical Museum Commission
- Lebanon County Federation of Sportsmen
- The Nature Conservancy
- Watershed Associations of Lebanon County
- Lebanon Valley Conservancy
- Audubon Society – Kittatinny Ridge
- PA Highlands

Please note also that the draft LEBCO MPO Long Range Transportation Plan was presented to the federal and state resource agencies at the Agency Coordination Meeting (ACM) on March 22, 2006. Once the comprehensive plan is finalized, the LEBCO MPO will return to ACM to discuss a broad range of actions, initiatives, projects, programs, and strategies. and their implications on natural and man-made resources of concern to the various federal and state agencies. This second meeting will probably occur early in calendar year 2008. Another key outcome from the ACM in 2006 was the agreement in principle to work with PennDOT and FHWA to add a wetlands mitigation bank in future Transportation Improvement Programs; this study is currently underway.

Airport Operations

The Lebanon County Transportation Profile, developed as a companion document to the Long Range Transportation Plan, inventoried the county's four privately-owned public use airports: Deck, Farmer's Pride, Keller Brothers, and Reigle. Key people at these operations were interviewed and a detailed tour of Deck Airport was provided by Mr. Clyde Deck on August 1, 2005. Data and information on Muir Field at the Indiantown Gap Military Reservation was obtained from the January 2002 report Airport Flexibility Study and Master Plan for Lebanon County and from a tour of the facilities on September 27, 2005.

Related to airport operations, key stakeholders were the owners of the above-mentioned private airports, Indiantown Gap Military Reservation, PennDOT's Bureau of Aviation and the municipalities where these facilities are located.

Freight Movement

As part of the data collection effort for the Transportation Profile, Norfolk Southern (NS) was interviewed and information was provided on its Reading to Harrisburg Line. Freight information was also collected from the Pennsylvania State Transportation Advisory Committee's 2004 report, entitled "The Economic Impact of Rail Freight".



Information on the movement of freight in the region was also shared with the LEBCO MPO since it is a member of the ongoing 8-County Goods Movement Study. Lebanon County Planning Department staff also attended a NS presentation entitled, "The Past, Present and Future of the Reading to Harrisburg Line", on November 10, 2005.

The Pennsylvania Turnpike Commission shared trend information on the comings and goings of heavy trucks at the Lebanon/Lancaster Interchange at PA Route 72.

Key businesses were also interviewed during the data collection phase in the spring, summer and fall of 2005. Stakeholders representing freight movement were Norfolk Southern, Mr. James Arey from PennDOT on behalf of the Transportation Advisory Committee, the consultants for the 8-County Goods Movement Study, trucking industry representatives and other key businesses.

Bicycle and Pedestrian

As part of the data collection effort for the Transportation Profile, key hiking and bicycling facilities have been documented. Cities, towns and villages that are considered walkable have also been noted.

During July, August, September and early October of 2005, staff members from the Lebanon County Planning Department visited every municipality and spoke to them about the ongoing planning activities and requested candidate projects for the plan and the 2007-2010 Transportation Improvement Program (TIP). Many bicycle-related issues/opportunities were identified, including possible future applications for

Transportation Enhancement (TE) Funds. During these sessions, a focus was placed upon three key concepts:

1. Putting most of the county's future transportation resources to projects that maintain/preserve the existing system;
2. Making small scale operational improvements to the existing system; and
3. Providing a variety of transportation choices (especially transit, walking and bicycling).

During the summer months of 2005, Lebanon County Planning Department staff and the consultants for the comprehensive plan/long range transportation plan also held six regional public meetings to gather additional input. Specific pedestrian issues were raised concerning the downtown areas in Palmyra Borough and Annville Township. Crossing US Route 422 is a growing problem in both areas.

123 "keyperson" interviews were also conducted for both efforts, and a number of individuals spoke to the need to make our cities, towns and villages more livable by improving opportunities for walking and bicycling.

Local and regional bicycle advocates and organizations have provided significant input in the development of both plans, too. The PennDOT Bicycle Coordinator (Dave Bachman) has also given direction to the Lebanon County Planning Department staff on how to promote bike/ped planning and has provided valuable information on how to incorporate "bike/ped friendly" features into projects currently being planned, designed and constructed.

PennDOT's Lebanon County Maintenance Office has been very supportive of "bike/ped friendly" features with its betterment projects (e.g., Cornwall Road and PA Route 419 resurfacing projects and excellent shoulders for walking, jogging and bicycling).

The Lebanon County Planning Department is currently working with several municipalities, a number of local/regional advocates and several state agencies, including the PennDOT Lebanon County Maintenance Office, on the rehabilitation of portions of PA Route 117. A future planning study should focus on the feasibility of extending the Lebanon Valley Rail Trail north from the City of Lebanon to Swatara State Park and Siegrist Dam.



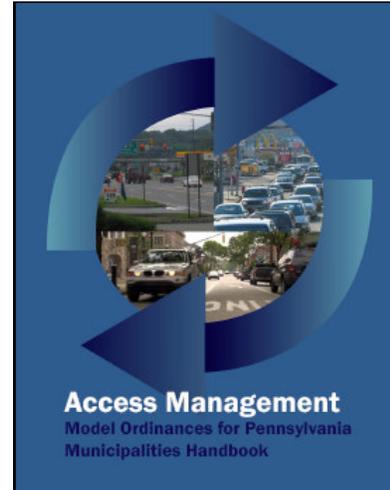
Bicycle and pedestrian transportation is practically an issue for every resident, since we all walk and/or bike to certain destinations. Therefore, every interviewed stakeholder or individual who provided input to the transportation planning process was deemed a bike/ped advocate. PennDOT's bike/ped planning consultant conducted a training course for the Lebanon County MPO on bike/ped mobility and safety in June 2006. The LEBCO MPO may dedicate sufficient resources to do more focused bike/ped planning as a task in a future Unified Planning Work Program.

Land Use Management

The staff from the Lebanon County Planning Department and the LEBCO MPO Technical Planning Committee/Policy Board understand the need to link land use and transportation decisions. That's why a request was made to PennDOT and DCED as well as DEP and DCNR to jointly fund the development of both the comprehensive plan and Long Range Transportation Plan Plans.

The Long Range Transportation Plan is recommending future access management initiatives in the two most heavily developing corridors, US Route 422 and PA Route 72. PennDOT's recently-developed model access management and noise ordinances will be used to support this vital work with adjacent municipalities. On the land use side, sound land use planning concepts are already taking hold in Lebanon County, and an early warning system is in place within County Planning to insure that the transportation planners know about significant development and redevelopment plans in order to provide "just in time" transportation facilities and services.

Proper land use management has been a discussion at every event where the comprehensive plan and/or the Long Range Transportation Plan have been discussed. The previous planned growth discussion also speaks to this subject. Both plans were developed with significant consultation from local, regional and statewide parties, especially as it relates to this topic.



Native American Indian Tribes

Consultation with Native American Indian Tribes that once lived in Lebanon County or south central Pennsylvania was initiated in April of 2006. Tribes that once prospered in the region were the Lenni-Lenape (Delaware), the Shawnee, the Mengwe, the Allegewi and the Iroquois. The Lenni-Lenape (or Lenni Lenapi) were members of the Algonquin family and had three separate tribes that once lived in the Lebanon Valley: the Unamis (turtle), the Unalachtgo (turkey) and the Minsi (wolf). The LRTP was distributed to the Shawnee Tribe of Oklahoma, the Delaware Nation living in Oklahoma, the Eastern Shawnee Tribe of Oklahoma, the Oneida Nation of Wisconsin, the Seneca-Cayuga Tribe of Oklahoma, the St. Regis Mohawk Tribe living in New York, the Shawnee Tribe of Oklahoma and the Tonawanda Seneca Nation living in New York in order to identify any geographic areas of Native American interest in Lebanon County that must be avoided during future transportation planning and/or project development.

To date, the Lebanon County MPO has been contacted by the Tonawanda Seneca Nation who did not identify any sites in Lebanon County as areas of interest to the Nation. The entire response from the Tonawanda Seneca Nation is contained within the references section of the Transportation Plan.

Environmental Justice Compliance

Environmental Justice comes from Title VI of the Civil Rights Act (1964), which states, “*No person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.*”

In 1994, Executive Order 12898 reinforced Title VI, mandating that recipients of federal funding make achieving environmental justice part of its mission by identifying as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations. This requires outreach to stakeholders who have traditionally tended to not become involved through the regular informational or public involvement process and evaluate the impact of the plan on minority and low-income populations.

The Lebanon County Planning Department has recently developed a Title VI / Environmental Justice Implementation Plan and Status Report. The document is intended to insure that “every voice counts” and that transportation decision making does not adversely affect targeted low income and minority populations. And the plan clearly spells out how the LEBCO MPO has reached out and will continue to reach out to everyone in the county for input into all transportation planning and programming matters.

Consultation with low income and minority populations is being done in a variety of ways, including:

- Preparing and distributing key transportation documents in Spanish
- Having a Spanish interpreter at key events
- Operating a booth with an interpreter at Unity Day celebrations
- Posting materials at the Spanish Center in the City of Lebanon.

On Friday evening, September 30, 2005, the Lebanon County Planning Department participated in a Radio Omega talk show program, focusing on community issues and opportunities that need to be addressed in the comprehensive plan and/or the transportation plan. Radio Omega is Lebanon’s Hispanic-speaking radio station. Again, two interpreters were used and some basic information was provided to the listeners and then the host answered questions and responded to concerns “on the air”. The program was deemed very successful by Radio Omega. City and County staff members will be returning for other programs dealing with (1) future housing needs and (2) the impacts of the 9th and 10th Streets Bridges project on the residents in the northwest portion of the City, which contains a significant Hispanic population.

“Keyperson” interviews included individuals in Lebanon County from all walks of life, including low income and minority populations. The LEBCO MPO Long Range Transportation Plan was developed with modest, but very effective input, from local persons and groups who either fall within this grouping or who represent such groups via their place of employment or their volunteer efforts. As the successes build, the Title VI / Environmental Justice Implementation Plan and Status Report will be amended and further outreach efforts will be conducted.

Action Plan

The Transportation Action Plan presents a summary list of actions to address the maintenance and planned improvement of the county's transportation system. The Transportation Action Plan recognizes that the Lebanon County MPO is a young organization that is steadily building its technical capacity, its partnerships, and its level of awareness in the community; several action items recommend continued efforts in these areas. The Action Plan also recognizes the importance of coordinating



transportation maintenance and improvements with comprehensive planning goals, particularly land use, utility infrastructure, and natural and cultural resource protection, in order to sustain the economic vitality and quality of life found in Lebanon County.

The action plan follows the goals and objectives outlined earlier in the plan. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are included to foster clear implementation of each item.

Goals

The Long Range Transportation Plan is organized around six goals that identify key directions or areas of priority.

1. Provide a safe and secure transportation system;
 - A. Provide safe transportation infrastructure and support safe operation of vehicles and transportation services.
2. Provide a multi-modal system that is efficient, interconnected and accessible;
 - A. Provide a multi-modal system that is efficient, interconnected and accessible.
3. Promote a sustainable transportation system that compliments the county's natural and built environment;
 - A. Coordinate transportation improvements with land use, infrastructure and other community development decisions.
 - B. Protect and enhance the environment and support energy conservation.
4. Meet the challenges and opportunities of growth through collaborative planning, funding and project implementation;
 - A. Promote community and neighborhood livability; improve the quality of life; and encourage a healthy lifestyle.
5. Target investments for maximum local and regional benefit and impact; and
 - A. Lead transportation planning with trained staff, current data, modern technology, and effective outreach.

Recommendations

Goal 1:	Provide a safe and secure transportation system
Objective 1A:	Provide safe transportation infrastructure and support safe operation of vehicles and transportation services.
Action 1A1:	Implement Highway Safety Improvement Program (HSIP) projects from current and future Transportation Improvement Programs (TIPs).
Intended Outcome:	Reduce accidents and fatalities at high crash occurrence locations
Time Horizon:	2008-2009 and ongoing
Lead Partners:	PennDOT; FHWA; LEBCO MPO Boards and staff
Support Partners:	Municipalities; Local police departments; State Police
Funding Sources:	HSIP Line Items in current and future TIPs
Action 1A2:	Insure that the operations of the County of Lebanon Transit (COLT) are addressing security issues in the post 9/11 era.
Intended Outcome:	Prevent and/or be prepared to deal with security issues throughout the transit system.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	COLT; Local police departments; State Police; South Central Regional Counter-Terrorism Task Force; Other first responders
Support Partners:	FTA; LEBCO MPO Boards and staff; Municipalities; users of the COLT system; PennDOT's transit staff
Funding Sources:	Current and future TIPs; South Central Regional Counter-Terrorism Task Force
Action 1A3:	Conduct Student Drivers Safety Symposiums annually.
Intended Outcome:	Reduce accidents and fatalities involving Lebanon County's young (under 21 years of age) drivers.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department; Center for Highway Safety; School Districts; Local police departments; State Police; Norfolk Southern; DUI Associations and other symposium participants
Support Partners:	Private sponsors
Funding Sources:	Current and future Unified Planning Work Programs (UPWPs) and private contributions

Goal 2:	Provide a multi-modal system that is efficient, interconnected and accessible.
Objective 2A:	Study deficient conditions and implement projects to address them.
Action 2A1:	Implement Long Range Transportation Plan (LRTP) projects via current and future Transportation Improvement Programs (TIPs).
Intended Outcome:	Provide a balanced transportation system that provides real travel options to its users.
Time Horizon:	2007 – 2010 TIP and 2009 – 2012 TIP
Lead Partners:	PennDOT, FHWA; FTA; LEBCO MPO Boards and staff
Support Partners:	Municipalities; SC PA Goods Movement Task Force; Susquehanna Regional Transportation Partnership
Funding Sources:	Current and future TIPs
Action 2A2:	Continue to update and refine the LRTP transportation profile.
Intended Outcome:	Maintain current datasets and transportation benchmarks to facilitate better decisions through the LEBCO MPO.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff; Local police departments; State Police
Support Partners:	PennDOT; FHWA; FTA; FRA; FAA; COLT; Aviation sponsors; Norfolk Southern; Municipalities; Non-profit groups that own and maintain transportation enhancement; Users of the various modes of transportation, including trucking industry representatives; Planning and engineering firms
Funding Sources:	Current and future Unified Planning Work Programs (UPWPs)
Action 2A3:	Develop bridge and pavement asset management systems for the LEBCO MPO.
Intended Outcome:	Attain a working database of bridge and roadway rehabilitation or replacement priorities.
Time Horizon:	2010-2011 and ongoing (maintenance)
Lead Partners:	PennDOT; LEBCO MPO Boards and staff; FHWA
Support Partners:	Planning and engineering firms
Funding Sources:	Special studies funding from PennDOT via the annual Unified Planning Work Programs (UPWPs) and/or future TIP funding

Action 2A4:	Conduct Traffic Signal Inventory Study.
Intended Outcome:	Establish a traffic signal data base to make better, more informed decision on funding for these infrastructure items.
Time Horizon:	2010-2011 to 2012-2013
Lead Partners:	LEBCO MPO Boards and staff
Support Partners:	PennDOT; FHWA; Municipalities; Planning and engineering firms
Funding Sources:	Current and future Unified Planning Work Programs (UPWPs) and/or TIPs
Action 2A5:	Complete the congestion management processes (CMP) plan.
Intended Outcome:	Develop and implement an ongoing and proactive approach to all forms of congestion in Lebanon County, including speed and delay monitoring in key corridors.
Time Horizon:	2008-2009
Lead Partners:	LEBCO MPO Boards and staff; Planning and engineering firms; PennDOT; FHWA
Support Partners:	FTA; Municipalities; Elected officials
Funding Sources:	Past (2005-2006) UPWP
Action 2A6:	Implement the US Route 422 Congested Corridor Improvement Program (CCIP) Study short-term recommendations.
Intended Outcome:	Complete the environmental phase, preliminary engineering, final design, ROW/utility relocations and construction of the short-term improvements as a package (one bid letting).
Time Horizon:	2008-2009
Lead Partners:	PennDOT; Planning and engineering firms; LEBCO MPO Boards and staff
Support Partners:	Municipalities; FHWA; Developers along the corridor
Funding Sources:	current and future TIPs

Action 2A7:	Conduct the PA Route 72 and Cornwall Road CCIP Study.
Intended Outcome:	Complete the study in calendar year 2008.
Time Horizon:	2008-2009
Lead Partners:	LEBCO MPO Boards and staff; PennDOT; planning and engineering firms
Support Partners:	Municipalities; Developers along these roadways; FHWA
Funding Sources:	Subsequent CCIP funding from PennDOT
Action 2A8:	Assist PennDOT with implementation of Interstate Maintenance (IM) projects.
Intended Outcome:	Be partner to PennDOT on IM Planning and project development in Lebanon County.
Time Horizon:	2008-2009 and ongoing, as needed
Lead Partners:	LEBCO MPO Boards and staff; PennDOT
Support Partners:	FHWA; Planning and engineering firms
Funding Sources:	Current and future TIPs
Action 2A9:	Conduct Point of Access (POA) Studies, as required.
Intended Outcome:	Following PennDOT/FHWA requirements, do POA Study for a full interchange at I-78 and US Route 22 in Bethel Township, Lebanon County.
Time Horizon:	2012-2013 to 2016-2017
Lead Partners:	LEBCO MPO Boards and staff; PennDOT; FHWA
Support Partners:	Planning and engineering firms; Bethel Township
Funding Sources:	Current and future Unified Planning Work Programs (UPWPs) and/or TIPs

Action 2A10:	Conduct and/or participate in local and regional transportation planning initiatives and project implementation, including but not limited to the COLT Business Plan, Rail-Trail North, CORRIDORtwo, Regional Operations Plan, SC PA Regional Goods Movement, etc.
Intended Outcome:	Identify projects, programs and services for future implementation.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	PennDOT; FHWA; FTA; LEBCO MPO Boards and staff
Support Partners:	COLT; Aviation sponsors; Municipalities; Planning and engineering firms
Funding Sources:	Base funding or special studies funding from PennDOT via the annual Unified Planning Work Programs (UPWPs)
Action 2A11:	On average, spend a minimum of 80% of TIP funds on maintenance and improvement of the existing transportation system.
Intended Outcome:	Carry out a "Maintenance First" philosophy.
Time Horizon:	2008-2009 to 2012-2013
Lead Partners:	LEBCO MPO Boards and staff, COLT, PennDOT, FHWA; FTA
Support Partners:	Elected officials
Funding Sources:	Current and future TIPs

Goal 3:	Promote a sustainable transportation system that compliments the county's natural and built environment.
Objective 3A:	Coordinate transportation improvements with land use, infrastructure and other community development decisions.
Action 3A1:	Conduct and/or participate in integrated planning activities and their implementation, including but not limited to congestion management processes, congested corridor improvement program, access management ordinance development, Traffic Impact Study/Highway Occupancy Permit training, airport hazard and clear zoning, scenic byways planning, etc.
Intended Outcome:	Identify projects, programs and services for future implementation.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	PennDOT; FHWA; FTA; FFA; Aviation sponsors; LEBCO MPO Boards and staff
Support Partners:	Municipalities; Planning and engineering firms
Funding Sources:	Base funding or special studies funding from PennDOT via the annual Unified Planning Work Programs (UPWPs)
Action 3A2:	Coordinate with municipalities and developers on major traffic impact studies and the implementation of recommended transportation projects.
Intended Outcome:	Establish partnerships with the private sector and municipalities to guide the development and fund the construction of timely transportation improvements.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Municipalities; developers; PennDOT; LEBCO MPO Boards and staff
Support Partners:	Planning and engineering firms
Funding Sources:	Current and future TIPs; Pennsylvania Infrastructure Bank (PIB) Loans; formal and informal partnerships; County Liquid Fuels Funds
Action 3A3:	Work with municipalities and developers via formal and informal partnerships to support LEBCO MPO TIP projects.
Intended Outcome:	Leverage more funding and advance projects to construction in a more expedited fashion.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff; Municipal managers; Developers; PennDOT; COLT
Support Partners:	Local elected officials
Funding Sources:	Current and future TIPs; private funds; PIB Loans; Liquid Fuels Funds

Action 3A4:	Assist with the administration of the County Liquid Fuels Program.
Intended Outcome:	Manage the day-to-day activities and recommend funding priorities to the County Commissioners.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department; PennDOT; Lebanon County Commissioners
Support Partners:	Municipalities
Funding Sources:	County Liquid Fuels Program; current and future TIPs; PIB Loans
Action 3A5:	Petition the Harrisburg MPO, PennDOT, FHWA and FTA to bring Palmyra Borough and outstanding portions of N. & S. Londonderry Townships into the LEBCO MPO.
Intended Outcome:	Have the ability to do countywide transportation planning and programming.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department; LEBCO MPO Boards and staff
Support Partners:	PennDOT; FHWA/FTA; Municipalities; Harrisburg MPO (HATS)
Funding Sources:	Funds not needed
Action 3A6:	Participate in community revitalization projects with related streetscape, sidewalk and/or cartway improvements.
Intended Outcome:	Coordinate comprehensive community improvements with multiple funding sources and provide direct transportation planning input.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO; FHWA/FTA; DCNR; DCED; DEP
Support Partners:	Public/private partnerships
Funding Sources:	LEBCO MPO TIP; PennDOT; FHWA/FTA; DCNR; DCED; DEP; Private sponsors

Action 3A7:	Integrate “consistency with the county’s growth management strategy” into the evaluation and rating criteria for candidate transportation projects.
Intended Outcome:	Prioritize transportation maintenance and improvements within designated growth areas per the county’s land use plan.
Time Horizon:	2008-2009
Lead Partners:	LEBCO MPO Boards and staff; Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Funds not needed
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Objective 3B:	Protect and enhance the environment and support energy conservation.
Action 3B1:	Conduct wetlands banking planning, air quality analyses for the LRTP/TIP projects, etc.
Intended Outcome:	Identify projects, programs and services for future implementation.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	PennDOT; FHWA; FTA; LEBCO MPO Boards and staff
Support Partners:	Municipalities; Planning and engineering firms
Funding Sources:	Base funding or special studies funding from PennDOT via the annual Unified Planning Work Programs (UPWPs); Current and future TIPs
Action 3B2:	Continue to use CMAQ Funds in innovative ways to improve the environment.
Intended Outcome:	Manage these funds effectively so that congestion is reduced and air quality is improved via LRTP/TIP projects.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff; PennDOT; FHWA; FTA
Support Partners:	Municipalities; Developers
Funding Sources:	Current and future TIPs; Public/private partnerships

Action 3B3:	Use federal and state laws, rules and regulations to address key environmental, cultural and historic issues.
Intended Outcome:	Insure that transportation planning, programming and project delivery fully satisfy federal laws like National Environmental Policy Act (NEPA) and use new processes like context sensitive solutions and right sizing to preserve/protect the natural and manmade environment.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff; PennDOT; FHWA; FTA
Support Partners:	Project sponsors
Funding Sources:	Current and future UPWPs; Current and future TIPs; Public/private partnerships

Goal 4:	Meet the challenges and opportunities of growth through collaborative planning, funding and project implementation.
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Objective 4A:	Promote community and neighborhood livability; improve the quality of life; and encourage a healthy lifestyle.
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Action 4A1:	Conduct a feasibility study to implement an automated horn system and "quiet crossings" at the Norfolk Southern Railroad at-grade crossings in the City of Lebanon; implement, if feasible.
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Intended Outcome:	Minimize audible warning without comprising safety at neighborhood rail crossings.
Time Horizon:	2012-2013 to 2016-2017
Lead Partners:	City of Lebanon; LEBCO MPO Boards and staff; Norfolk Southern; PennDOT; FHWA; FRA
Support Partners:	Planning and engineering firms
Funding Sources:	Special studies funding from PennDOT via the annual Unified Planning Work Programs (UPWPs)

Action 4A2:	Solicit candidate transportation enhancement (TE) projects.
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Intended Outcome:	Identify, evaluate and program TE projects that enhance livability within Lebanon County.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department; LEBCO MPO Boards and staff
Support Partners:	Municipalities; Non-profit groups; School Districts; PennDOT; FHWA
Funding Sources:	Current and future TIPs; public/private partnerships; DCNR Recreational Trails Funding

Action 4A3:	Obtain training from PennDOT, PANA and other bicycle/pedestrian planning experts on how to promote biking and walking and how to develop and implement related projects.
Intended Outcome:	Learn about and implement best practices related to bike/ped projects, programs and services.
Time Horizon:	2008-2009 to 2012-2013
Lead Partners:	Lebanon County Planning Department; PennDOT; PANA; Health and wellness advocates
Support Partners:	Municipalities; Planning and engineering firms
Funding Sources:	Current and future TIPs; public/private partnerships; DCNR Recreational Trails Funding

Goal 5:	Target investments for maximum local and regional benefit and impact.
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Objective 5A:	Lead transportation planning with trained staff, current data, modern technology, and effective outreach.
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Action 5A1:	Provide continuing education and technology training for LEBCO MPO and LCPD staff.
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Intended Outcome:	Improve the ability to provide effective transportation planning leadership.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Lebanon City/County GIS
Funding Sources:	Current and future Unified Planning Work Programs (UPWPs)

Action 5A2:	Maintain the City/County Geographic Information System, (GIS) database with up-to-date software and current data sets.
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Intended Outcome:	Utilize current data and modern technology to make better, more informed decisions.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff; City/County GIS staff
Support Partners:	PennDOT; FHWA; FTA; COLT; Airport providers; Municipalities
Funding Sources:	Current and future UPWPs; City and County funds

Action 5A3:	Continue to update and implement the Public Participation Plan and the Title VI/Environmental Justice Implementation Plan and follow the soon-to-be-developed process for coordination with Indian Tribal Governments.
Intended Outcome:	Have a proactive, cost-effective public involvement process that is of value to decision-making.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff
Support Partners:	PennDOT; FHWA; FTA; COLT; Airport providers; Municipalities
Funding Sources:	Current and future UPWPs
Action 5A4:	Utilize a wide range of accessible media to educate and inform the public on LEBCO MPO activities
Intended Outcome:	Have a more informed and supportive citizenry, with positive and constructive community input to transportation decision-making.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	LEBCO MPO Boards and staff
Support Partners:	Municipalities; Local radio stations; Newspapers and television stations; Lebanon County website/webmaster
Funding Sources:	Current and future UPWPs

Implementation Plan

Introduction

The Lebanon County Long Range Transportation Plan is built on a foundation of cooperation between the Lebanon County MPO, local, regional, state and Federal agencies, the county's municipalities, the county's residents and employers, and other stakeholders. This cooperation and coordination is essential to ensure that the Plan is implemented.

The Long Range Transportation Plan will be implemented through the Transportation Improvement Program (TIP) and the day-to-day activities of the staff of the Lebanon County Planning Department. The various Federal agencies that approve the expenditure of Federal transportation funds will use this LRTP as part of the basis for their decisions.

Municipal and private sector partnerships will play a growing role in the implementation of plan/TIP projects. The Lebanon County Planning Department staff will continue to work with local elected officials and business leaders that have an interest in and a willingness to fund studies, programs and/or projects that will improve

the transportation network in Lebanon County and beyond. Diversity in funding sources will obviously lessen the dependency on public funding. Project development is often slowed by the lack of federal and state funding in any given federal fiscal year. By infusing local/private funds into the mix, project delivery can and will be enhanced. The LEBCO MPO's efforts to use taxpayer dollars better by leveraging them with private funding will enable more projects to advance sooner.

Businesses involved in shipping and heavy truck movements could be great allies in supporting and financing roadway and/or bridge improvements. Some may choose to supply materials to be used in a project's construction. These companies and industries will be recognized for their leadership.

Staging the Improvements

The recommended improvements are presented as Transportation Improvement Program (TIP) items, short-term (1-4 years), medium-term (5-12 years) and long-term (13-25 years), in order to match the estimated project cost to available funding. Future LRTP updates should see projects rise to the shorter term and eventually placed on the TIP.

The TIP projects and the short-term projects and strategies represent LEBCO MPO's initial priorities.

Coordination with Other Ongoing Planning Efforts

The LEBCO MPO LRTP will reflect the MPO's coordination with other regional ongoing planning efforts and, when practicable, include the studies and projects in LRTP updates. The ongoing planning studies that may produce projects to be included in future LRTP updates are listed below.

CORRIDORtwo

The CORRIDORtwo commuter rail project is a proposed investment for regional rail or bus service between the City of Lebanon and Harrisburg using the Norfolk Southern Harrisburg Line. The potential future CORRIDORtwo major investment study/rail feasibility study will be sponsored by Capital Area Transit, the public transit provider for the Harrisburg area, and the Modern Transit Partnership, nonprofit rail transit advocacy organization that was created by the Capital Area Transit Board in 1997. LEBCO MPO will track this proposed project for future LRTP updates. This project is linked to the proposed CORRIDORone commuter rail project which will link Lancaster to Mechanicsburg via Harrisburg.

Susquehanna Regional Transportation Partnership (SRTP)

The SRTP is a seven county, nonprofit corporation dedicated to identifying and implementing transportation options beyond the single occupancy vehicle (SOV) to help reduce SOV tripmaking in south central Pennsylvania. The SRTP advocates a variety of programs to increase transit service and availability and improve air quality, including ridesharing and emergency/guaranteed ride home. The LEBCO MPO participates actively in the SRTP and will accommodate any SRTP projects or programs in future LRTP updates.

South Central Pennsylvania Goods Movement Study

The Harrisburg Area Transportation Study (HATS) has recently completed a regional freight goods movement study for the eight-county central Pennsylvania region. Lebanon County Planning Department staff members provided regular input to the study and expect that projects from the study will emerge and be included in future LRTP updates.

Plan Update Schedule

Federal regulations require that the Long Range Transportation Plan be updated every four years. The term of this LRTP is 2005-2030. The next full LRTP update would logically begin in calendar year 2009 and conclude in July of 2010. However, with the Lebanon County Comprehensive Plan scheduled to be approved in late 2007, the LEBCO MPO has agreed to make appropriate changes to the plan early next calendar year to ensure proper coordination with the comprehensive plan. Re-adoption of the Long Range Transportation Plan will occur in mid-2008 with approval of the 2009-2012 TIP. After that milestone is met, the LEBCO MPO will work with PennDOT, FHWA and FTA to determine the next plan update cycle.

Air Quality Conformity

The US Department of Transportation and the US Environmental Protection Agency require that metropolitan planning organizations in metropolitan areas that are designated nonattainment for the 8-hour ozone and/or PM_{2.5} standard must determine conformity of metropolitan transportation plans and TIPs.³ For the LEBCO MPO, this will require that air quality evaluations for the LEBCO MPO LRTP will be conducted by PennDOT and its consultant to ensure compliance with the Clean Air Act.

In the future, the LEBCO MPO will continue to rely on PennDOT and its air quality consultant to undertake plan/TIP conformity determinations since the Lebanon County Planning Department will not have the staff or expertise (transportation model) to ensure compliance with USDOT and EPA mandates.

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³ 69 FR 40008-40014

REFERENCE ITEMS

I. LEBCO MPO Long Range Transportation Plan Highway and Bridge Financial Forecast Table

II. LEBCO MPO Long Range Transportation Plan Transit Financial Forecast Table

III. Correspondence from the Tonawanda Seneca Nation

IV. LEBCO MPO FFY 2007-2010 Transportation Improvement Program (Highways and Bridges)

V. LEBCO MPO FFY 2007-2010 Transportation Improvement Program (Interstate Maintenance)

VI. LEBCO MPO FFY 2007-2010 Transportation Improvement Program (Transit)

I. LEBCO MPO Long Range Transportation Plan Highway and Bridge Financial Forecast Table

I. LEBCO MPO Long Range Transportation Plan Highway and Bridge Financial Forecast Table (\$000)															
FFY	Interstate Maint.	NHS	STP	State Hwy	Federal Bridge	State Bridge	Urban	Safety	CMAQ	Rail	TE	Ear-marks	Spike	Local	TOTAL (in \$000s)
2007	0	1,547	1,589	1,556	2,176	1,076	0	601	1,113	133	242	1,600	2,400	200	14,233
2008	0	1,559	1,618	1,555	2,193	1,076	0	608	1,121	133	250	6,650	6,650	450	17,213
2009	0	1,589	1,534	1,550	2,238	1,074	192	622	1,143	133	259		6,650	450	17,434
2010	0	1,589	1,534	1,550	2,238	1,074	198	622	1,143	133	259			100	10,440
2011	0	1,637	1,580	1,597	2,305	1,106	204	641	1,177	137	267	6,400	1,100	475	18,626
2012	0	1,686	1,627	1,645	2,374	1,139	210	660	1,212	141	275		7,500	475	18,945
2013	0	1,737	1,676	1,678	2,445	1,173	216	680	1,248	145	283			100	11,381
2014	0	1,789	1,728	1,728	2,518	1,208	223	700	1,285	149	291			100	11,717
2015	0	1,843	1,778	1,780	2,594	1,244	230	721	1,324	153	300			100	12,067
2016	0	1,898	1,831	1,833	2,672	1,281	237	743	1,364	158	309			100	12,426
2017	0	1,955	1,886	1,888	2,752	1,319	244	765	1,405	163	318			100	12,795
2018	0	2,014	1,943	1,945	2,835	1,359	251	788	1,447	168	328			100	13,178
2019	0	2,074	2,001	2,003	2,920	1,400	259	812	1,490	173	338			100	13,570
2020	0	2,136	2,061	2,063	3,008	1,442	267	836	1,535	178	348			100	13,974
2021	0	2,200	2,123	2,124	3,098	1,485	275	861	1,581	183	358			100	14,388
2022	0	2,266	2,187	2,188	3,191	1,530	283	887	1,628	188	369			100	14,817
2023	0	2,334	2,253	2,254	3,287	1,576	292	914	1,677	194	380			100	15,261
2024	0	2,404	2,321	2,322	3,386	1,623	301	941	1,727	200	391			100	15,716
2025	0	2,476	2,391	2,392	3,488	1,672	310	969	1,779	206	403			100	16,188
2026	0	2,550	2,463	2,464	3,593	1,722	319	998	1,832	212	415			100	16,688
2027	0	2,627	2,537	2,538	3,701	1,774	329	1,028	1,887	218	427			100	17,166
2028	0	2,706	2,613	2,614	3,812	1,827	339	1,059	1,944	225	440			100	17,679
2029	0	2,787	2,691	2,692	3,926	1,882	349	1,091	2,002	232	453			100	18,205
2030	0	2,871	2,772	2,773	4,044	1,938	359	1,124	2,062	239	467			100	18,749
Totals	0	50,274	48,735	48,732	70,794	34,000	5,887	19,671	38,128	4,194	8,170	8,000	24,300	3,951	362,834

SAFETEA-LU Earmarks: 9th & 10th Streets Bridges construction = \$6,400,000; Schaefferstown Bypass construction = \$1,600,000; and Campbelltown Connector construction = \$2,000,000.

II. LEBCO MPO Long Range Transportation Plan Transit Financial Forecast Table (\$000)

FFY	5307	5309 (earmark)	5310	5316 (JARC)	5317 (NF)	TIP Flex	Statewide Flex	State PTAF & Act 3	State Capital	???	Local Op.	Local Capital	TOTAL (in \$000s)
2007	766	300		49	31			714	149		52	29	2,090
2008	831	0		53	34			714	149		52	29	1,862
2009	879	0		56	35			714	149		52	29	1,914
2010	879	0		56	35			714	149		52	29	1,914
2011	911	0		58	36			714	149		52	29	1,949
2012	938	0		60	37			714	149		52	29	1,979
2013	966	0		62	38			714	149		52	29	2,010
2014	995	0		64	39			714	149		52	29	2,042
2015	1,025	0		66	40			714	149		52	29	2,075
2016	1,056	0		68	41			714	149		52	29	2,109
2017	1,088	0		70	42			714	149		52	29	2,144
2018	1,120	0		72	43			714	149		52	29	2,179
2019	1,154	0		74	44			714	149		52	29	2,216
2020	1,189	0		76	45			714	149		52	29	2,254
2021	1,224	0		78	46			714	149		52	29	2,292
2022	1,261	0		80	47			714	149		52	29	2,332
2023	1,299	0		82	48			714	149		52	29	2,373
2024	1,338	0		84	49			714	149		52	29	2,415
2025	1,378	0		87	50			714	149		52	29	2,459
2026	1,419	0		90	52			714	149		52	29	2,505
2027	1,462	0		93	54			714	149		52	29	2,553
2028	1,506	0		96	56			714	149		52	29	2,602
2029	1,551	0		99	58			714	149		52	29	2,652
2030	1,597	0		102	60			714	149		52	29	2,703
Totals	27,832	300		1,775	1,060	0	0	17,136	3,576	0	1,248	696	53,623

II. Correspondence from the Tonawanda Seneca Nation

The Tonawanda Seneca Nation provided the Lebanon County MPO with the following email response to the MPO's outreach to determine whether there are geographic areas of interest to the Nation that need to be identified as part of the development of the Long Range Transportation Plan:

From: "Tonawanda Seneca Nation" <tonsenec@buffnet.net>
To: <dtkotay@comcast.net>
Cc: "Tonawanda Seneca Nation" <tonsenec@buffnet.net>
Subject: Re: Long Range Transportation Plan
Date: Thu, 20 Apr 2006 18:38:29 +0000

Dear Mr. Kotay,

Thank you for your email in regard to the long range transportation plan for Lebanon County. I would like to inform you that Lebanon County, PA is not an area of interest to the Tonawanda Seneca Nation.

If interested, and if you provide me with your fax number, I could send you the areas of interest for the Tonawanda Seneca Nation.

Thank you for your attention to this matter.

Christine G. Abrams
On behalf of the Council of Chiefs
Tonawanda Seneca Nation

VI. LEBCO MPO FFY 2007-2010 Transportation Improvement Program (Transit) as of 9/10/2007

09/10/2007 14:52
Rpt# TIP206

FFY 2007 Lebanon TIP
Public Transit

Page 1 of 1

Project	Project Title	Sponsor	FFY 2007 Costs				FFY 2008 Costs				FFY 2009 Costs				FFY 2010 Costs				Total								
			Fed.	St.	Federal	State	Local	Total	Fed.	St.	Federal	State	Local	Total	Fed.	St.	Federal	State		Local	Total						
76235	2007 Vehicles	COLT		ACT3		290,010	9,990	300,000																300,000			
76236	2008 Vehicles	COLT								ACT3		580,020	19,980	600,000											600,000		
76244	2007 Operating Assistance	COLT	5307	ACT3	766,000	714,000	50,279	1,530,279																	1,530,279		
76246	2007 Paratransit Vehicles	COLT		164		220,000		220,000																	220,000		
76247	2009 Vehicles	COLT													ACT3		580,020	19,980	600,000							600,000	
76248	2008 Operating Assistance	COLT							5307	ACT3	831,000	714,000	50,279	1,595,279											1,595,279		
76254	2009 Operating Assistance	COLT													5307	ACT3	884,000	714,000	50,279	1,648,279						1,648,279	
76255	2010 Operating Assistance	COLT																		5307	ACT3	884,000	714,000	50,279	1,648,279	1,648,279	
76257	2010 Vehicles	COLT																			ACT3		580,020	19,980	600,000	600,000	
76260	Auto Stop Announce Sys	COLT	5309	ACT3	300,000	75,000		375,000																	375,000		
					1,066,000	1,299,010	60,269	2,425,279			831,000	1,294,020	70,259	2,195,279			884,000	1,294,020	70,259	2,248,279			884,000	1,294,020	70,259	2,248,279	9,117,116

For Summary, re-run and select the "Summary" radio button.

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7

Community Facilities & Utilities Plan

Findings.....	7-2
Measures of Service	7-13
Shared and Coordinated Services	7-15
Interrelationships of Natural Resources.....	7-19
The Action Plan.....	7-20

A large, rectangular concrete sign with a brick base. The sign is engraved with the words "LEBANON COMMUNITY LIBRARY" in all caps. The sign is set against a background of a brick building with arched windows and a large green tree. In the foreground, there are some green plants and grass.

LEBANON COMMUNITY LIBRARY

The Community Facilities and Utilities Plan addresses perhaps the widest range of topics of any of the comprehensive plan elements. Services include education, public safety and emergency response, health care, public water and sewer, trash and recycling, and government administration. Coordination of these services is complicated by the fact that services are provided by a range of public, quasi-public and private sector entities.



The Community Facilities and Utilities Plan begins with an overview of the analysis and findings from *Background Study #4, the Community Facilities and Utilities Profile*. The plan's second section deals with the current state and federal guidelines for community services. The third section explores existing and potential shared service arrangements in the county. The fourth section relates the provision and quality of community facilities and utilities to other elements of the comprehensive plan. The final section, the Action Plan, outlines the vision, goals, objectives and recommendations for effective, efficient, and coordinated services throughout the county.

MPC Requirement: *A plan for community facilities and utilities, which may include public and private education, recreation, municipal buildings, fire and police stations, libraries, hospitals, water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, and flood plain management, utility corridors and associated facilities, and other similar facilities or uses.*

MPC Article III, Section 301(a)(4)

Overview of Findings from the Community Facilities and Utilities Profile

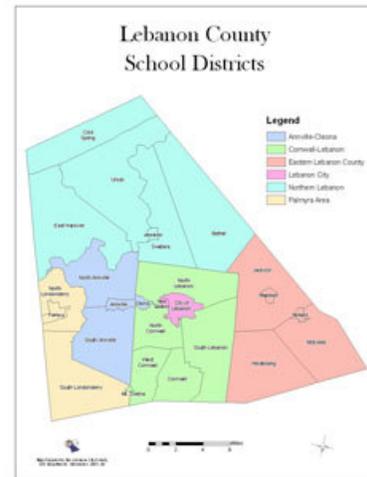
Background Study #4 presents a detailed inventory of community facilities and utilities in Lebanon County. In conjunction with the findings of public participation activities, it analyzes how these facilities are planned and managed and how these services meet resident needs.

Educational Facilities and Services

Public Education

- There are 6 public school districts in the county comprising 34 public school facilities.
 1. Annville-Cleona School District - 4 sites
 2. Cornwall-Lebanon School District - 6 sites
 3. ELCO School District - 6 sites

4. Lebanon School District – 7 sites
5. Northern Lebanon School District – 6 sites
6. Palmyra Area School District – 5 sites



- The countywide student population in public schools in the 2006-2007 school year was 19,002. This was an increase of 888 students, 4.9%, since the 1999-2000 school year. The Palmyra Area School District had the largest increase, 409 students, and the most rapid rate of growth, 15.0%. The Cornwall-Lebanon School District had the second largest increase, 209 students, but a less significant increase, 4.5% due to its already larger student population. The Annville-Cleona School District was the only district with a declining student population from 1999-2000 to 2006-2007.
- Student enrollment projections prepared by the Pennsylvania Department of Education suggest an increase of 916 students, or 4.8%, in the countywide student population by the 2015-2016 school year. These projections indicate double-digit growth rates in student populations for the ELCO School District and 4%-7% growth in student populations for all remaining school districts except Annville-Cleona, where state projections indicate continued decline as they do not account for planned development.

- In response to recent and projected growth, school districts have been renovating and rebuilding existing facilities. The Northwest Elementary School in the Lebanon School District and the Ebenezer Elementary School in the Cornwall-Lebanon School District have not been renovated or rebuilt since their original construction. Only three new public schools have been built in the past 20 years, although the Cornwall-Lebanon and Palmyra School Districts are nearing capacity or studying the need for new schools in the coming years. As the resident population continues to grow, district facilities will need to expand. The location and connectivity of these facilities with their neighborhoods will need to be considered.



- More than two of three graduates of Lebanon County school districts, 67.6%, pursued some type of postsecondary education in 2006 and postsecondary enrollments are growing overall. Enrollment in 2-4 yr colleges and universities has been trending upward, in associates' degrees trending downward, and in non-degree programs relatively unchanged in 5 years. This may be due, at least in part, to the fact that several districts have agreements with postsecondary schools that enable students to take classes for enrichment and college credit.
- The Cornwall-Lebanon and Northern Lebanon School Districts are recognized for their innovative funding strategies. The Cornwall-Lebanon School District is

supported by the Falcon Foundation, and the Northern Lebanon School District has used outside funding and grants for capital improvements and enrichment.

- The Lebanon County Career and Technology Center (LCCTC) has eight high school and 19 adult programs and offers customized job training programs to local employers. Steady growth, particularly in its health care services programs, has resulted in expanded course offerings at the LCCTC.
- The Lancaster-Lebanon Intermediate Unit 13 is available to enhance administrative services and educational opportunities by providing quality, cost-effective services in the areas of Business Services, Human Resources, Instructional Services, Special Education Services, and Technology Services. The IU 13 serves the 22 school districts in Lancaster and Lebanon Counties as well as students in nonpublic schools, preschoolers, and adult learners.

Private Education

- There are 22 private primary and secondary schools serving the central and eastern regions of Lebanon County. The majority of private/nonpublic schools are Mennonite or Amish Schools, which tend to be small in student population and provide schooling only through Grade 8. The remaining schools are a mix of religious affiliations offering K-12 curricula.
- Statistics from the Pennsylvania Department of Education indicate that 7.8% of school age children in Lebanon County attended private schools in 2005-2006 and that enrollments in private schools have declined 3.8% between the 2000-2001 and 2005-2006 school years.

Home School Education

- Statistics from the Pennsylvania Department of Education indicate that 2.6% of school age children in Lebanon County are home schooled and that participation in home school programs has increased 20.4% over the past five years.

Postsecondary Education

- Lebanon Valley College offers 28 undergraduate/ baccalaureate programs, 4 graduate programs, and special programs in bio-medical, engineering and military sciences. The largest institution of higher education in the county, Lebanon Valley College had a Fall 2006 student population of 1,804 undergraduates and 157 part-time graduate students. Few other small colleges have received more Fulbright awards than Lebanon Valley College – thirteen awards in the past thirty-four years – with mathematics majors receiving five during that period. U.S. News &



World Report's 16th annual "America's Best Colleges" issue and guidebook ranked LVC among the top tier of colleges and universities in the category of "Best Universities Master's in the North". Poised for growth, the school has constructed a new residence hall/quad and a new student center in 2002, a new gymnasium in 2003, and the Garber Science Center in 2006. In addition, the conversion of Lynch Memorial Hall to an academic building was completed in 2004.

- The Lebanon Campus of the Harrisburg Area Community College (HACC) offers 2 and 4 year degrees and workforce training. The campus enrolled over 1,100 students and has experienced double-digit percentage increases in enrollment since Spring 1998. Approximately 60% of students are adults attending classes after work. The Lebanon Campus operates at near capacity. The college plans to expand its operation by locating additional satellite facilities throughout the county, particularly in the northern region. Initiatives planned for the Lebanon Campus include the Small Business Development Center, which will offer free business and market planning services, and a geospatial technology center, which will offer students skills in information management, marketing, and planning. The college has also received a capital donation—an existing building in downtown Lebanon—for the development of a technology training center. HACC is seeking public and private funds to renovate the building and establish its new function.
- The Evangelical Theological Seminary offers courses in biblical study and counseling. Evangelical is the smallest of the three postsecondary schools, yet its student body has grown by 10% over the past 5 years to just over 175 graduate students.
- Lebanon County Career School, Inc., a professional truck driving school, and the Central PA Carpenters Joint Apprenticeship & Training Committee are the two postsecondary trade schools in the county.

Library Facilities and Services

- There are 6 independent libraries in the Lebanon County Library System:
 1. Annville Free Library
 2. Lebanon Community Library
 3. Matthews Public Library
 4. Myerstown Community Library
 5. Palmyra Public Library
 6. Richland Community Library
- In general, the libraries offer traditional book collections and reading programs as well as computer centers for public access to the Internet. While these six facilities operate independently, they do participate in an interlibrary loan program, which enables residents to access almost all materials in these libraries. The facilities are typically operated by small paid staffs extensively supplemented with volunteers.
- The county provides annual funding to the library system. The Palmyra Public Library is the only library that receives municipal funds toward its operation. Others



raise funds through charitable giving and special events. The Palmyra Public Library is also the only library with a strategic plan. Its 2006 plan, *A Bright Future*, recommended enhancement and expansion of the facility and its services, diversity in its funding and fundraising programs, and strengthening its relationships with the school district, community partners and the public at large.

Public Safety

Police Services

- Police protection in Lebanon County is provided by the Pennsylvania State Police, the County Sheriff's office, and municipal police departments.
- The Pennsylvania State Police's Troop L operates a station in Jonestown. State Police respond to calls where local police services are not available, i.e. in municipalities without local police forces and in municipalities with off-duty part-time police forces. State Police will also respond to emergency calls received by the State Police directly from the caller or when assistance is requested by local forces. In addition to responsive police services, the state police organization provides many other training, technical and analytical services through its various bureaus and offices. Municipalities in the Northern Lebanon School District rely entirely on the State Police. The adequacy of this service to meet local needs has been questioned as a local community concern.
- The Lebanon County Sheriff's office is involved in the civil and criminal work of county government.
- Lebanon County has 16 municipal police departments. Forces are typically small with less than 10 officers; the City of Lebanon has a force of 47 officers.
- Local police service is adequate per the public and officials' surveys conducted for this plan. The cost of local police services, however, is a concern. Police service is typically the largest single expense in a municipal budget. The total cost of staff, insurance, health care, equipment, training and facilities consumes upwards of 30% of the budget of some municipalities.
- In response to an increased perception of crime in the City of Lebanon, the Lebanon Crime Commission report analyzed and identified crime as a symptom of other causes and recommended a five-sided strategy to reduce crime: 1) outreach/prevention; 2) economic revitalization; 3) neighborhood revitalization; 4) juvenile justice; and 5) reduced recidivism. The Lebanon Police Department has instituted a community policing program to bring police officers together with the community to solve problems.



Fire Protection Services

- There are 44 fire departments or companies serving the county, or 39.2 firefighting organizations per 100,000 residents. The distribution of companies provides good coverage across the county. The number of organizations per 100,000 residents is more than double any of the adjacent counties and nearly double the state figure.
- Most are organizations ranging in size from 15 to 35 volunteers. The City of Lebanon employs 21 paid staff supplemented by more than 50 volunteers. Fire departments were highly rated by public and officials' surveys. The public has expressed some interest in further cooperation or consolidation of fire protection organizations.
- The Lebanon County Firefighter's Association supports local fire companies with training services, fire prevention education assistance and service recognition for firefighters, officers and volunteers. The County of Lebanon owns and the Association operates a training facility in Avon.
- Lebanon County is participating in the Pennsylvania Fire Information Reporting System, a statewide fire information reporting system, through the Lebanon County Emergency Management Agency (LEMA) and support from the Lebanon County Firefighter's Association.
- The operation of volunteer fire companies has become more challenging as operational costs increase, equipment becomes outdated, and volunteerism declines.



Medical Facilities and Emergency Services

- The Good Samaritan Health System, Lebanon Veterans Affairs (VA) Medical Center, New Perspectives at White Deer Run, and Philhaven Behavioral Healthcare Services are the four major medical institutions in the county. Residents have good access to these facilities. Good Samaritan Hospital, the VA and White Deer Run are centrally located in the city or on its outskirts, offering convenient access to the majority of the population. Philhaven is located in West Cornwall Township. Residents in the western portion of the county also have easy access to the Penn State Hershey Medical Center. Five drug and alcohol treatment centers are also located in the county.



- There are 18 emergency medical service organizations in the county, providing emergency and routine ambulatory response and transportation. These organizations are primarily run by volunteers and have reported that there are an insufficient number of responders/providers for the call volume received in the county.
- There are 12 nursing homes in the county: 1 county-owned (Cedar Haven), 3 for profit, and 8 non-profit homes. Most of these facilities are located in communities along the Route 322 and 422 corridors. All 12 facilities compared favorably to the statewide average on inspection criteria for similarly sized facilities.
- The 24 personal care homes, also known as "assisted living residences", "retirement homes" or "boarding homes," have a collective capacity for 853 residents. State licensing regulations enforced by the Department of Public Welfare apply to personal care homes to protect the health, safety and well-being of the residents.
- Six senior centers provide meeting places for social interaction, games, fitness, bus trips, and meals.

Solid Waste Management

- The Greater Lebanon Refuse Authority (GLRA) is responsible for managing a comprehensive solid waste disposal system for Lebanon County.
- The GLRA owns a total of 412 acres in North Annville, Swatara, and North Lebanon Townships, with active land filling taking place in North Lebanon Township.
- All Lebanon County-generated municipal waste is directed to the GLRA landfill. Standards are imposed on waste haulers to manage the amount of waste deposited at the landfill each day.
- The Greater Lebanon Refuse Authority has become a model landfill for its innovative use of a natural wetland treatment system for treating leachate, its methane recovery program, and its walking trail that passes through forest and farmland and by three locks of the historic Union Canal.
- Trends analyzed for the 2000 Lebanon County Solid Waste Management Plan indicated that solid waste generation is increasing faster than residential and employment growth. Projected volumes indicate that the current landfill will not reach capacity before 2016. The solid waste management plan makes four major recommendations: 1) increase recycling to reduce demand for waste disposal; 2) continue methane recovery; 3) continue public education; and 4) increase emergency response planning.



Aerial Photo of GLRA Landfill

- The county's 2006 recycling rate was 28%, showing progress toward the state target of 35%. The solid waste management plan states that more types of materials could be recycled. Recyclable materials are currently limited to glass, plastics, magazines and hazardous household waste.

Utility Systems

Public Water

- The City of Lebanon, the boroughs and the first class townships are each fully or nearly fully served by public water systems. Several villages and mobile home communities as well as the Fort Indiantown Gap Military Reservation are also served by public or community water systems. These areas total more than 26,000 acres. Water service is planned or anticipated for nearly 6,000 additional acres, for a total of 13.7% of the county served or planned for water service by 2020.
- The City of Lebanon Authority (CoLA) provides public water service to about 57,000 people in the central and eastern urbanized areas of the county, particularly along the Route 422 corridor. The plant has a treatment capacity of 10 million gallons per day (mgd) and an average rate of 7.7 mgd. With some modifications and improvements, the plant rating could increase to 20 mgd. With this current excess capacity, extensions of the water system could be made by municipalities to address failing wells; by developers for new construction; or by CoLA to create loops that eliminate dead ends and to balance system flow and pressure. The authority's distribution and transmission system is in fair to good condition for its age.
- A study from October 2000 indicates that the current average daily source water demands exceed the safe yield of the existing sources of supply, i.e. the Swatara Creek and Siegrist Reservoir, under drought conditions. CoLA plans to address the issue of limited water supply in the coming 5-10 years. Previous plans considered construction of a dam and reservoir at Swatara State Park; however, the approved master plan for the park does not include a dam or reservoir. CoLA has considered this decision final and expects to pursue investigation of groundwater sources for additional supply.
- PA American Water serves the western portion of the county. PA American Water has interest in expanding its service along Rt. 934 across from the Annville-Cleona High School, and to fringe areas north of the existing Annville and Palmyra service areas. Municipal planning in these areas indicates a need for expanded water service
- There are more than 25 small water systems operating in the county. A mid-1990s study, done by the U. S. Army Corps of Engineers, identified potential interconnections and improved inspection and maintenance options to ensure water supply and improve compliance with state regulations. The first phase of the study was completed and made recommendations for each system; the second phase of the study was not completed. Further investigation of the feasibility of system interconnection is needed to ensure a safe water supply for current customers and potential community and economic growth.

Public Sewer

- Six regional systems and several municipal and small systems serve the urban, suburban and village areas of Lebanon County. These areas total almost 27,000 acres or 11.5% of the county. Sewer service is planned for another 6.0% of the county by 2020.
- Municipal authorities are expanding sewer service to solve problems and serve areas planned for future service. There is minimal advance expansion to attract development.
- With the exception of the wastewater treatment plant in Fredericksburg, systems are operating under capacity. Projections of planned service areas suggest that additional capacity will be needed in the Myerstown and Palmyra regions, and the design of new facilities for these regions is underway. Collection systems are generally in fair to good condition.
- Twenty municipal sewage facilities plans are more than 10 years old.
- The Lebanon County Planning Department conducts permitting and inspection of on-lot sewage disposal systems.
- Six municipalities have sewage management programs requiring regular pumping of on-lot disposal systems. These programs provide means to monitor the systems for problems before they become severe.
- Sewage facilities plans note the presence of nitrates in groundwater and the need for on-lot sewage management programs. Hydrogeological studies are also noted as ways for municipalities to manage land suitability for development.
- The Pennsylvania Chesapeake Bay Strategy has established nutrient and sediment limits for wastewater treatment plants. Five of the six plants in the county now have fixed annual limits for nitrogen and phosphorus; the smaller Mt. Gretna plant is not currently affected by these limits. In order to achieve the level of treatment required by 2010, as required by the state, wastewater treatment plants would need to build new or modified processing equipment to remove the excess nutrients. The cost of such upgraded treatment will be substantial and could vary from plant to plant, depending on how much construction is needed. Purchasing nutrient trading credits could be an alternative to plant modification.



Private Utility Services

- Natural gas, electric, and telecommunications services are made available by private companies.
- Several natural gas and crude oil pipelines traverse Lebanon County.

Hazard Mitigation

- The Lebanon County Emergency Management Agency (EMA) is responsible for training, education, coordination, and assistance relating to natural disasters, hazards and other emergencies
- The office is interested in acquiring digital mapping to improve its ability to respond to emergencies.
- Requirements for county EMA offices continue to evolve in light of technological advances in communications and the ever-present threat of terrorism.
- The Lebanon County EMA provides a 24-hour Pennsylvania state-certified Hazardous Materials Response Team to handle chemical spills and biohazards
- The South Central Regional Counter-Terrorism Task Force serves Adams, Cumberland, Dauphin, Franklin, Lancaster, Lebanon, Perry, and York Counties. Funding for Task Force projects and initiatives has been available from the federal government; however, the expenditures have been limited to equipment, facilities, and other investments to harden physical infrastructure.



Other Public Facilities

Federal Facilities

- More than 12,000 acres of the Fort Indiantown Gap Military Reservation are located in Lebanon County. Only a small portion of the reservation is developed; the remainder of the reservation consists of forest and other natural land covers. The Pennsylvania National Guard manages the facility on a day-to-day basis but the Gap is also home of the Pennsylvania Department of Military and Veterans Affairs, which oversees both the Army and Air National Guard and the state's programs for serving the needs of Pennsylvania's 1.3 million veterans. On average, more than 100,000 students and trainees rotate through the installation every year. Full-time employment tops 1,200 making Fort Indiantown Gap the largest employer in Lebanon County. Its annual economic impact to the county exceeds \$100 million.
- Other military facilities include the Indiantown Gap National Cemetery and the Pennsylvania Army National Guard Armory.



State Facilities

- Pennsylvania facilities include a PennDOT-operated Photo and Exam Center and six magisterial district judge offices, as well as two state parks, six state game lands, and a portion of the Middle Creek Wildlife Management Area.

County Administration and Facilities

- Lebanon County's legislative and executive government is led by the three-member Board of Commissioners. The Board directs 14 departments, predominantly located at the County-City Municipal Building. Eight offices are led by county officials elected by the public. Six offices are associated with the local justice system and lead by elected officials and hired staff.
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- The county's facilities include the Municipal Building, Cedar Haven Nursing Home, the Lebanon County Correctional Facility, the Renova Center for intermediate care of severely or profoundly mentally retarded individuals, and the Agricultural Center, which houses the Conservation District offices. The county also operates satellite sites for other county offices, including the Area Agency on Aging, the Mental Health/Mental Retardation Program, the Drug and Alcohol Program, the Juvenile and Adult Probation Services, and the Community Action Partnership. The county also has full ownership or partial interest in four memorial, recreation and conservation sites: Monument Park, Union Canal Tunnel Park, Lebanon Valley Rail Trail corridor, and the Clarence Schock Memorial Park at Governor Dick.
 - There are twenty five municipal offices in Lebanon County – one for each local government except Cold Spring Township, where no governing body exists – as well as additional municipal facilities for storage, maintenance, and recreation.

Measures of Service Guidelines for Community Services

The quality of life that Lebanon County offers is one of its most significant assets. A large portion of that quality of life is attributable to the quality of its community services. As the population grows and services expand to meet increased demands, the quality of those services will need to be carefully protected.

One way to measure and compare the quality of community services over time and through change is through community indicators. Community indicators are numeric measures of specified aspects of community life including community services but also the economy and the environment. Individually and collectively, they tell in what direction the community is moving – moving forward or backward, or maintaining the status quo



in relation to established goals. They help identify issues and set priorities within the often wide path of progress toward community goals. They are based on a vision for the future, available data (or willingness to collect it) and what is proposed to be reported to the community in order to demonstrate linkages and inspire action. It is essential to note that indicators are not a substitute for action, but rather a measure of the effectiveness of actions.¹

Increasingly, counties are using community indicators as a means to measure and report progress on the community goals established in their comprehensive plans. Mercer County first used indicators in its 1996 comprehensive plan. Lancaster County followed in step a few years later. The Lancaster Community Indicators Project, an independent statistical and analytical collaborative effort of service, civic, governmental, and educational organizations, has developed its community indicators report called *Measure Up, Lancaster!* Project partners and other organizations throughout the county use the indicators to measure and report the effectiveness of their services. In addition, organizations use the indicators to see where further work needs to be done or a change in direction is required.²

The background studies for the Lebanon County Comprehensive Plan have already documented several measures of service. Monitoring of these measures through plan updates or other publications will serve to show positive and successful implementation of the Community Facilities and Utilities Plan. In addition to those already inventoried, several other potential measures have been listed in Figure 7-1 for consideration as indicators. Further expansion and selection of these measures, as well as responsibilities for monitoring and reporting, are needed before calling them indicators for Lebanon County.

¹ *Measure Up, Lancaster!*, Volume 3, 2006.

² *Ibid.*

Figure 7-1 Potential Indicators

Education and Cultural Enrichment

1. Percentage of 5th, 8th and 11th graders scoring "below basic" proficiency on state mandated standardized tests.
2. Percentage of residents, 18 years and older who read below a 9th grade level.
3. Absentee rates by school district.
4. Adults with at least high school diploma
5. Adults with at least a bachelor's degree
6. Library books & other cataloged items per capita
7. Population with library cards
8. Per capita spending/support for library services compared regionally
9. Number of public access computer terminals in public libraries
10. Total number of venues (art galleries, museums, live productions, theatres) for artistic enjoyment, enhancement, and expression
11. Annual attendance at arts and cultural venues
12. Percentage of high school graduates who pursue postsecondary education
13. Percentage of high school graduates who achieve gainful employment within one year of graduation

Public Safety and Emergency Services

14. Percentage of persons who feel safe walking at night in their neighborhood.
15. Violent crime statistics per 100,000 residents for adult and juvenile offenders.
16. Full-Time Law Enforcement Officers per 1,000 residents
17. Firefighting organizations per 100,000 residents
18. Emergency Medical Technicians per 1,000 residents
19. First Responders per 1,000 residents
20. Advanced Life Support (ALS) Professionals per 1,000 residents
21. Average emergency call response time (in minutes)
22. Public safety expenditures as percentage of general expenditures or per capita cost of local police departments

Medical Facilities and Emergency Services

23. Infant mortality rate
24. Physician rate per 10,000 residents
25. Beds set up & staffed per 1,000 residents
26. Admissions per hospital bed
27. Nursing home beds per 1,000 residents
28. Child abuse and neglect rate
29. Teen pregnancy rate per 1,000
30. Nursing hours per resident of nursing homes
31. Percentage of middle and high-school aged youth who have admitted using 1) alcohol, 2) tobacco, or 3) an illegal drug or other controlled substance within the past thirty days
32. Percentage of adults reporting health insurance, dental vision care, mental health and/or substance abuse benefits
33. Percentage of population that feels less able to cope with the routine demands of life than one year ago
34. Percentage of youth reporting symptoms of depression

Solid Waste Management

35. Pounds of trash per capita deposited at the Greater Lebanon Refuse Authority Landfill
36. Average household/municipal recycling rate

Public Water

37. Average number of gallons water used per day per household
38. Available capacity for water treatment
39. Available capacity for sewer treatment
40. Number of municipalities that permit private on-lot wells but do not require regular testing.

Private Utility Services

- 41. Frequency of service interruptions
- 42. Duration of service interruptions

County Administration and Facilities

- 43. Percentage of residents who do volunteer work.
- 44. Courts expenditures as percentage of general expenditures
- 45. Number of clients served by county human service programs
- 46. Number of clients per caseworker in county human service programs
- 47. Occupancy rate at Cedar Haven
- 48. Per diem cost of housing.
- 49. Staff retention rate and/or turnover rate.
- 50. Arrests per 100,000 juveniles for felony or misdemeanor offenses
- 51. Percentage of juvenile re-offenders
- 52. Number of grievances regarding the county prison or operations.
- 53. Costs saved by volunteer and existing community services

Shared and Coordinated Services

Current Shared and Coordinated Services

County and local governments have numerous and diverse public service responsibilities. The level of service, i.e. service types, quality, consistency, and responsiveness to emergencies, varies widely from one municipality to another. This variation is due to local preference and the availability of financial and staff resources, though minimum standards for some services are defined by state law.

Municipal governments have the authority to share or coordinate services across municipal boundaries. Such sharing and coordination can range from service planning to decision-making and investment to administrative responsibilities. Working together in one or more of these aspects can make services more cost-effective for municipal government and its supporting taxpayers, meaning citizens receive the same level of service at a lesser cost, or receive a higher level of service at the same cost.

Service sharing and coordination among county and local government is widespread and long-standing in Lebanon County. The Palmyra Area Recreation and Park Commission was established more than 30 years ago to provide recreation programs throughout the school district. Palmyra, North Londonderry and South Londonderry Townships, and the school district each make a per capita contribution to the commission's fund and have representation on the board of directors to ensure that services meet local needs and are provided equitably. Numerous municipalities have working relationships with adjacent municipalities for the operation of water distribution and sewage collection systems, as well as mutual aid agreements for police and fire response in times of need. The Emergency 911 dispatch service provided by the Lebanon County Emergency Management Agency is one of several county services that coordinate municipal response to local needs. The zoning, code, and sewage enforcement services provided by the Lebanon County Planning Department are another, supplying contract services in the spirit of cost-effective and consistent code administration. Additional discussion of service sharing and coordination has occurred and continues today, through municipal gatherings such as the monthly meetings of municipal managers

and the quarterly dinner and discussion meetings of the Northern Lebanon School District and its member municipalities.

All of the various municipal units of Pennsylvania share the same basic responsibilities with respect to the provision of public services at the local level and have similar statutory powers. Although cities have more specifically enumerated powers than boroughs or townships, many of those powers may also be exercised by boroughs and townships under general grants of power.

The main areas of local (government) services include police and fire protection, maintenance of local roads and streets, water supply, sewage collection and treatment, parking and traffic control, local planning and zoning, parks and recreation, garbage collection, health services, libraries, licensing of businesses and code enforcement.

The Pennsylvania Manual, Vol. 117, Section 6, Pennsylvania Local Government

Further Opportunities for Shared and Coordinated Services

As Lebanon County's population grows, its need for public services will also increase. This may mean extending services into newly developed areas, hiring additional staff, and adding new facilities, as well as more diverse services to meet changing needs. As municipalities consider and plan for future growth and its impacts through updated comprehensive plans, they may want to review the organization of their public services and explore options for service sharing and coordination.

Police Service

As one of the most costly public services, police services are one of the more commonly shared services in Pennsylvania. A study prepared by the South Central Assembly for Effective Governance in 2000 examined the methods of providing police services across the eight-county study area.

Policing in the South Central Region (2000) found that local police services are



still the predominant type of police service in south central Pennsylvania though regional police forces are used in Adams, Cumberland, Lancaster, and York Counties. The study looked in detail at the financing of police services and found wide-ranging costs per capita for both municipal police departments and regional police departments, suggesting that the level of service, such as number of officers, hours of service, etc. also varies from one department to another. This underscores the need to consider the level of service in relation to department costs when comparing service types. Figure 7-2 lists the benefits of regional policing, as presented in *Policing in the South Central Region*.

Figure 7-2 Benefits of Regional Policing

Benefits of Regional Policing

- ◆ Regional departments allow the sharing of administrative staffing, supervision and overhead, thereby reducing costs over time.
- ◆ Regional departments permit a community to pay for and support only the amount of police services it needs based upon workload. It is not necessary to pay for and provide a full-time department just to have requests for services responded to on a 24-hour basis.
- ◆ Regional departments allow communities to develop more uniform law and police enforcement policies and permit a more effective response time to area-wide crime and law enforcement problems.
- ◆ By becoming larger in numbers, regional police departments allow communities to use their officers more effectively by assigning them to working shifts when the work is there to do, rather than when the officers are available, or to be there to respond to a call in the event an officer is needed.
- ◆ Communities policed by regional departments get a better accounting for their financial contributions as well as the activities and enforcement efforts of the police because of the accounting and accountability methods established in regional departments.
- ◆ Police officers in regional police departments are more able to receive training because of their larger size, thereby improving the efficiency of the police.
- ◆ Police officers are further removed from local government politics in regional departments, permitting a more professional application of law enforcement and police services.
- ◆ Because of the larger size, police officers on regional departments receive more opportunities for training, specialization and advancement, thereby improving their career opportunities.

*Policing in the South Central Region,
A Regional Police Study by the South Central Assembly for Effective Governance*

Fire Protection

While fire protection services are by and large provided by volunteer organizations in Lebanon County, citizens feel the burden of their operational costs. Citizens attending the summer 2005 *Forums for Our Future* specifically inquired about the abundance of fire companies and opportunities to coordinate administrative requirements, equipment needs and overall services.



In 2003, the Pennsylvania House of Representatives directed the Legislative Budget and Finance Committee to explore the feasibility of restructuring Pennsylvania’s volunteer fire companies through regionalization or other methods and to present a plan for such regionalization. This directive was completed in 2005. *The Feasibility of Regionalizing Pennsylvania’s Volunteer Fire Companies* explored the topic in five ways:

1. An overview of volunteer fire services, which includes the history and tradition of volunteer companies, the number of volunteer companies, the range of services provided, the value of those services to the public, and the funding sources available to companies;

2. An analysis of the challenges to volunteer companies, including declining volunteerism, rising costs and demands, and resource limitations;
3. A cost-benefit analysis of regionalization;
4. An analysis of various regionalization applications (programs, case studies, and lessons learned) in Pennsylvania; and
5. A presentation of the perspectives of state level officials on regionalization methods for volunteer fire companies.

The study concluded that “various forms of fire services regionalization, including consolidations and mergers, are feasible and represent a logical approach to addressing many of the challenges currently facing the Commonwealth’s 2,354 volunteer fire companies,” and made four major recommendations to the General Assembly and the State Fire Commissioner to enable, initiate, and lead the restructuring of fire services. While these recommendations focused on state level changes, the decision to explore restructuring would still lie with the fire companies. Interested fire companies, however, will have guidance from this study.

Public Utilities

As noted above, municipalities already have strong working relationships with one another in regard to the municipal public water and sewer systems in the county. Further opportunities for utility coordination exist in the Army Corps of Engineers’ recommendations to interconnect small water systems to ensure adequate supply during peak, drought and emergency conditions and to have certified inspections of treatment facilities. There may also be an opportunity to gain a more thorough understanding of regional sewer systems through comprehensive system planning. Systemwide service area and collection facilities mapping would give decision-makers access to the same information when considering extensions, particularly across drainage divides. Such an approach could also strengthen coordination with land use planning. In both cases, implementation responsibilities would most likely remain at the municipal level.

Other Public Services

Library and emergency medical services, like fire protection services, are largely provided by volunteers in the county. Volunteer services are a fiscally responsible means to meeting local needs with limited resources, particularly when supplemented with municipal support insurance, utility and other administrative costs. Reliance on volunteer services is increasingly difficult, as citizens are spending less time in volunteer organizations. Meeting these kinds of local needs in the future may require dedicated municipal services.

Interrelationship of Community Facilities to other Elements of the Comprehensive Plan

Land Use and Housing

Land use implies a demand for community services in all but the most remote areas of the community. Housing is indeed the most expensive use to serve; however, each type of development, regardless of location or intensity, places some level of demand for public safety and emergency response, access to medical facilities, clean water, and access to waste disposal facilities on community service providers. The land use plan outlines a growth management strategy that focuses development in existing and adjacent planned service areas to aid community service providers in maintaining efficient, cost-effective systems and services.

Recreation

Recreation, open space and greenways are integral to overall community services. They help to improve the quality of life by reducing anti-social behavior, building strong family bonds, creating a sense of community and contributing to human development and good health. By providing positive experiences throughout a lifetime, recreation helps to deter the associated costs of the justice system, incarceration, counseling, youth and family services and so on. Parks and recreation help to keep citizens fit and healthy. The U.S. Surgeon General has named municipal parks and recreation as a powerful weapon in the fight against obesity and the lack of physical activity, the number one public health issue in America today. Open space, greenways and recreation contribute to mental health by reducing stress, isolation and loneliness. They are often the catalysts for building strong self-sufficient communities where trail groups, art guilds, sports and fitness leagues, volunteer organizations, and park stewards are a part of the fabric of community life. In terms of infrastructure, utility rights-of-way can offer connecting corridors for a network of countywide recreational trails.

Natural Resource

The most significant relationship between community services and natural resources is water. Every community activity requires water and generates some form of wastewater or excess flow as part of the comprehensive water cycle. Whether planning for adequate water supplies, potable water quality, sewage treatment or stormwater management, the availability and quality of water to downstream or groundwater resources remains paramount to stewardship of water resources.



Transportation and Energy Conservation

The location and design of various community facilities and utilities has an impact on energy use. Encouraging schools and recreational facilities, religious centers, and other community facilities and utilities to locate new facilities near residential neighborhoods encourages people to walk or bike to these destinations, rather than driving fuel-driven vehicles. Compact forms of development also reduce the distance that public safety and emergency personnel have to travel to reach someone in need. In addition, the condition of water and sewer infrastructure also influences energy demand for these utilities. Inefficiencies in treatment equipment and collection and transmission pipes can lead to higher operational costs for authorities, companies and ultimately consumers.

Action Plan

The Community Facilities and Utilities Action Plan outlines recommended actions to sustain and improve the vast array of services provided by county and other public agencies as well as the private for-profit and non-profit sectors. The Action Plan recognizes the importance of these services to the quality of life residents and businesses find in Lebanon County. The Action Plan begins with an overview of the vision for effective, efficient and coordinated services throughout the county, followed by the recommended actions. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are included.



Vision, Goals and Objectives

Vision

Provide or coordinate adequate, cost effective public services in the areas of education, health, safety, and utility services.

Goals and Objectives

- 1. Provide access to educational services and support programs for cultural enrichment.**
 - A. Maintain adequate capacity for planned growth in educational and library facilities.
 - B. Provide educational and enrichment opportunities for all ages.
 - C. Promote programs and events that foster a greater understanding and appreciation of the arts.

- 2. Provide public safety services that meet local needs and reflect national and statewide standards.**
 - A. Provide training opportunities, modern facilities, and equipment for public safety staff and volunteers.
 - B. Encourage efficient public safety services.
 - C. Coordinate response to known hazards
 - D. Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current datasets.

- 3. Encourage the planning and development of a modern, secure health care system.**
 - A. Guide the development of modern, secure facilities consistent with service and programming needs.
 - B. Support the expansion of preventative and treatment health and wellness programs.

- 4. Provide an adequate solid waste collection and disposal system.**
 - A. Promote proper handling and disposal of hazardous materials and solid waste.
 - B. Support the continuation and expansion of recycling programs
 - C. Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current datasets.

- 5. Ensure a clean, adequate water supply and sewage disposal systems.**
 - A. Ensure sound water and sewer infrastructure planning that is consistent with standards, conforms to land use plans and adequately meets needs.
 - B. Maintain water and wastewater treatment facilities that provide adequate capacity for planned development and that meet water quality standards.
 - C. Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current datasets.

- 6. Facilitate private utilities planning in support of planned growth.**
 - A. Identify existing and emerging telecommunications infrastructure, particularly that which is crucial for retaining and attracting businesses.
 - B. Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current datasets.

- 7. Provide adequate facilities for county and local government administration and affiliated service agencies.**
 - A. Provide modern, secure facilities for government and affiliated social service agencies consistent with service and programming needs.
 - B. Maintain services and programs that meet local needs.

Recommendations

Goal 1:	Provide access to educational services and support programs for cultural enrichment.
Objective 1A:	Maintain adequate capacity for planned growth in educational and library facilities.
Action 1A1:	Periodically update total population and student enrollment projections based on enrollment trends and local knowledge of planned development.
Intended Outcome:	Relevant and accurate student population projections.
Time Horizon:	2008-2009 to determine frequency of updates; ongoing updates as determined
Lead Partners:	School Districts; Municipalities; Lebanon County Planning Department
Support Partners:	PA Department of Education
Funding Sources:	Municipalities
Action 1A2:	Support planned modernization and expansion of educational facilities. Program facility renovation and/or expansion, replacement, or additions based on current projections. Develop siting criteria for new facilities that require land acquisition. Strive to site facilities in designated growth areas to maximize pedestrian access. Continue to renovate facilities for energy efficiency.
Intended Outcome:	Cost-effective facility expansion.
Time Horizon:	Ongoing
Lead Partners:	School Districts; Postsecondary Schools
Support Partners:	Municipalities; Lebanon County Planning Department
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Community Development Block Grant (CDBG); Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; United States Department of Energy (DOE) Rebuild America Program; DCED Weatherization Program; Pennsylvania Energy Development Authority Grants (PEDA); Governor's Green Government Council Green Schools Planning Grants; Pennsylvania Department of Education Early Childhood Capital Investment Fund (loan program); Pennsylvania's State Public School Building Authority and Pennsylvania Higher Educational Facilities Authority financing programs

Action 1A3:	Share successful, innovative funding strategies for capital investments with other educational institutions.
Intended Outcome:	Application of best practices and effective funding strategies.
Time Horizon:	Ongoing
Lead Partners:	School Districts
Support Partners:	Municipalities; Lebanon County Planning Department; Pennsylvania Department of Education; Pennsylvania's State Public School Building Authority and Pennsylvania Higher Educational Facilities Authority financing programs
Funding Sources:	Municipalities; PA DCED (technical assistance/grants); Foundations
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Objective 1B:	Provide educational and enrichment opportunities for all ages.
Action 1B1:	Identify needs for educational programming, including expansion of programs for the growing Hispanic population.
Intended Outcome:	Public and non-public educational programs that prepare students and workers for community life and first-time employment.
Time Horizon:	Ongoing
Lead Partners:	Public Schools, including the Lebanon County CTC; Postsecondary Schools; Local Libraries
Support Partners:	IU 13; Chamber of Commerce
Funding Sources:	Pennsylvania Department of Education NETShare competitive grant program, Regional Summer Schools of Excellence program, and Community Education Council Grant program; Foundations
Action 1B2:	Support efforts to expand advanced college credit programs and distance learning capabilities for online, correspondence or other off-site instruction at existing educational institutions.
Intended Outcome:	Expand diversity of learning opportunities, particularly those that lead students to local institutions of higher learning.
Time Horizon:	Ongoing
Lead Partners:	Public Schools, including the Lebanon County CTC; Postsecondary Schools; Local Libraries
Support Partners:	IU 13; Pennsylvania Department of Education ABLE Distance Learning Project
Funding Sources:	Pennsylvania Department of Education Enhancing Education Through Technology (EETT) Wave 2 program

Action 1B3: Support strategic planning and implementation for the library system and its independent libraries.	
Intended Outcome:	Sustain and improve the level of service provided by local libraries.
Time Horizon:	Ongoing with emphasis in 2010-2011 as comprehensive planning is updated
Lead Partners:	County Commissioners; Municipalities
Support Partners:	Local Libraries; Public Schools
Funding Sources:	Pennsylvania Department of Education Keystone Recreation; Park and Conservation Funds Public Library Facilities Grant Program (Public Libraries Division); Foundations
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Objective 1C: Promote programs and events that foster a greater understanding and appreciation of culture and the arts.	
Action 1C1: Support special programs and events that celebrate the history and varied cultures of the county.	
Intended Outcome:	Increase understanding and appreciation of the county's diverse past and present.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Historical Society; Local Historical Organizations; Latino American Association Center
Support Partners:	County Commissioners; Municipalities
Funding Sources:	Municipalities
Action 1C2: Coordinate and expand arts programming such as performances, readings, and displays by local musicians, authors and artists in schools, libraries, community centers, parks and other public facilities as well as at special events.	
Intended Outcome:	Increase understanding and appreciation of the county's diverse past and present artisans.
Time Horizon:	Ongoing
Lead Partners:	Public Schools; Local Libraries; Recreation Organizations
Support Partners:	County Commissioners; Municipalities
Funding Sources:	Pennsylvania Department of Education 21st Century Community Learning Centers program; Foundations

Goal 2:	Provide public safety services that meet local needs and reflect national and statewide standards.
Objective 2A:	Provide training opportunities, modern facilities, and equipment for public safety staff and volunteers.
Action 2A1:	Periodically benchmark the basic configuration and performance of public safety agencies, i.e. number of organizations, staff, volunteers; response time; etc. Compare these figures to statewide and national standards. Evaluate performance based on local resources and identify areas in need of improvement. Work with the relevant agencies and departments.
Intended Outcome:	Cost-effective services that meet local needs.
Time Horizon:	Annually, or as determined by partners
Lead Partners:	Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies
Support Partners:	Municipalities
Funding Sources:	Municipalities
Action 2A2:	Encourage sharing of training resources, equipment and facilities among organizations.
Intended Outcome:	Improve efficiency of equipment investments and expand experience level of users.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies
Support Partners:	Municipalities
Funding Sources:	Fire companies; Firefighters; Community Colleges
Action 2A3:	Continue to evaluate and refine the countywide emergency communications system.
Intended Outcome:	Reliable, real-time emergency communications among county, municipal and first responders.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies
Support Partners:	Municipalities
Funding Sources:	Municipalities; Public Safety Interoperable Communication (PSIC) Grant Program

Objective 2B: Encourage efficient public safety services.

Action 2B1: Review and evaluate how public safety services are currently provided in the county and identify possible overlaps in service areas and duplication of equipment. Assist agencies in exploring alternatives. Work with the relevant agencies and departments.

Intended Outcome: Cost-effective services.

Time Horizon: 2012-2013

Lead Partners: Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies

Support Partners: Lebanon County Planning Department; Lebanon City/County GIS Department

Funding Sources: Pennsylvania Department of Community and Economic Development (DCED) Regional Police Assistance Grant Program and Shared Municipal Services program

Action 2B2: Encourage organizations to adopt mutual aid agreements with neighboring communities.

Intended Outcome: Cooperate in delivering public safety services.

Time Horizon: 2008-2009 and ongoing

Lead Partners: Municipalities; Local Police; Fire Companies

Support Partners: Lebanon County Emergency Management Agency; Lebanon County Firefighters Association

Funding Sources: N/A

Action 2B3: Investigate multi-jurisdictional police and fire protection services. Coordinate or consolidate services based upon service and fiscal efficiency.

Intended Outcome: Cost-effective services.

Time Horizon: 2012-2013

Lead Partners: Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies

Support Partners: Lebanon County Planning Department; Lebanon City/County GIS Department; Municipalities

Funding Sources: Pennsylvania Department of Community and Economic Development (DCED) Regional Police Assistance Grant Program and Shared Municipal Services program; In-Synch Systems Small Agency Justice Grants (for record keeping and reporting)

Action 2B4: Explore innovative methods for funding capital investments and operational improvements and retaining and expanding the volunteer base.

Intended Outcome: Cost-effective, adequately staffed services.

Time Horizon: Ongoing

Lead Partners: Municipalities; Lebanon County Firefighters Association; Local Police; Fire Companies

Support Partners: Lebanon County Planning Department

Funding Sources: Municipalities; PEMA; FEMA

Objective 2C: Coordinate response to known hazards.

Action 2C1: Complete and implement a countywide hazard mitigation plan.

Intended Outcome: Complete planning and establish protocols and processes for hazard response.

Time Horizon: Plan completion anticipated in 2007; 2008-2009 for implementation; ongoing for implementation, as needed

Lead Partners: Lebanon County Emergency Management Agency; Lebanon County Firefighters Association; State and Local Police; Fire Companies

Support Partners: Lebanon County Planning Department; Lebanon City/County GIS Department

Funding Sources: Pennsylvania Emergency Management Agency Hazard Mitigation Grant Program

Objective 2D: Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.

Action 2D1: Compile data on the location of fire hydrants and other water sources.

Intended Outcome: A state-of-the-art GIS capable of providing data analysis and mapping for county and municipal planning activities and coordinating emergency response.

Time Horizon: 2008-2009 and in conjunction with ongoing planning studies

Lead Partners: Lebanon City/County GIS Department

Support Partners: Lebanon County Emergency Management Agency; Municipalities; Municipal Authorities

Funding Sources: Municipalities

Goal 3: Encourage the planning and development of a modern, secure health care system.

Objective 3A: Guide the development of modern, secure facilities consistent with service and programming needs.

Action 3A1: Work with health care providers to establish and regularly update benchmarks for health care facilities in the county, based on standards, guidelines or community needs (e.g., hospital beds per 1,000 people, doctors/nurses per 1,000 people, availability of medical technology, etc.).

Intended Outcome: Comparable measures of access to health care.

Time Horizon: Every two years, or as agreed by partners

Lead Partners: Health Care Organizations; United Way or other data collection and reporting agency; Health Care Cost Containment Council (PA Department of Health)

Support Partners: Chamber of Commerce; Lebanon County Planning Department

Funding Sources: County budget (for staff assistance)

Action 3A2: Support health care providers in efforts to expand or add facilities or improve access.

Intended Outcome: Convenient location of and access to health care.

Time Horizon: Ongoing

Lead Partners: Municipalities; Emergency Service Providers

Support Partners: LEBCO MPO; Lebanon County Emergency Management Agency; Lebanon City/County GIS Department

Funding Sources: Private sponsors

Objective 3B: Support the expansion of preventative and treatment health and wellness programs.

Action 3B1: Monitor community wellness issues that arise and respond with appropriate intervention actions.

Intended Outcome: Responsive health and human service programs.

Time Horizon: Ongoing

Lead Partners: Health Care Organizations; United Way; Lebanon County Medical Society

Support Partners: Public Schools; Chamber of Commerce

Funding Sources: Municipalities; Foundations

Action 3B2:	Continue to update and distribute the walking trails guide.
Intended Outcome:	Widespread awareness of safe locations to walk for health and wellness.
Time Horizon:	Every two years, or as agreed by partners
Lead Partners:	Health Care Organizations
Support Partners:	Chamber of Commerce; Lebanon City/County GIS Department
Funding Sources:	Municipalities; Foundations

Goal 4:	Provide an adequate solid waste collection and disposal system.
Objective 4A:	Promote proper handling and disposal of hazardous materials and solid waste.
Action 4A1:	Continue public education programs to promote waste reduction and recycling, proper disposal of hazardous materials and municipal education regarding enforcement of waste management ordinances.
Intended Outcome:	Reduce per capita rate of solid waste disposal.
Time Horizon:	Ongoing
Lead Partners:	Greater Lebanon Refuse Authority
Support Partners:	Municipalities; Public Schools; Other Public Agencies
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 190 Household Hazardous Waste Collection Grant
Action 4A2:	Update the Greater Lebanon Refuse Authority's Municipal Waste Management Plan.
Intended Outcome:	Maintain assessment of solid waste generation rates, landfill capacity, recycling rates.
Time Horizon:	2008-2009
Lead Partners:	Greater Lebanon Refuse Authority
Support Partners:	Municipalities; Commercial Waste Generators (Business and Industry stakeholders)
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 101, Section 901 County Planning Grants

Objective 4B:	Support the continuation and expansion of recycling programs.
Action 4B1:	Investigate the feasibility of expanding the number and types of materials being recycled.
Intended Outcome:	Increase municipal recycling rates.
Time Horizon:	Ongoing with emphasis during solid waste planning and implementation
Lead Partners:	Greater Lebanon Refuse Authority
Support Partners:	Municipalities; Public Schools; Other Public Agencies
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 101, Section 902/903/904 Recycling Grants
Action 4B2:	Increase recycling marketing and public education efforts.
Intended Outcome:	Increase municipal recycling rates.
Time Horizon:	Ongoing
Lead Partners:	Greater Lebanon Refuse Authority
Support Partners:	Municipalities; Public Schools; Other Public Agencies; Chamber of Commerce
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 101, Section 902/903/904 Recycling Grants
Action 4B3:	Review ordinances to identify existing provisions that may hinder recycling efforts.
Intended Outcome:	Increase municipal recycling rates.
Time Horizon:	Ongoing
Lead Partners:	Greater Lebanon Refuse Authority; Lebanon County Planning Department
Support Partners:	Municipalities; Chamber of Commerce
Funding Sources:	Municipalities; Pennsylvania Department of Environmental Protection (DEP) Act 101, Section 901 County Planning Grants

Action 4B4:	Develop and distribute a model recycling ordinance for municipalities that currently do not practice recycling.
Intended Outcome:	Increase municipal recycling rates.
Time Horizon:	2010-2011 as implementation of updated (2010) solid waste plan
Lead Partners:	Lebanon County Planning Department; Greater Lebanon Refuse Authority
Support Partners:	Municipalities; Chamber of Commerce
Funding Sources:	Municipalities

Objective 4C:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current datasets.
Action 4C1:	Where helpful to municipalities and the Greater Lebanon Refuse Authority, develop datasets for landfill and recycling locations, etc.
Intended Outcome:	A state-of-the-art GIS capable of providing data analysis and mapping for county and municipal planning activities.
Time Horizon:	2008-2009 in conjunction with the updated (2010) solid waste plan
Lead Partners:	Greater Lebanon Refuse Authority; Lebanon City/County GIS Department
Support Partners:	Municipalities
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 101, Section 901 County Planning Grants

Goal 5:	Ensure a clean, adequate water supply and adequate sewage disposal systems.
Objective 5A:	Ensure sound water and sewer infrastructure planning that is consistent with standards, conforms to land use plans and adequately meets needs.
Action 5A1:	Establish a maintenance-first philosophy to sustain existing infrastructure (treatment plants, pump stations, distribution/collection lines) through its useful life cycle.
Intended Outcome:	Prioritize system maintenance.
Time Horizon:	2008-2009
Lead Partners:	Municipal Authorities
Support Partners:	Private Water Companies
Funding Sources:	N/A
Action 5A2:	Update of water and sewer planning at the system or local level, specifically completion of water supply studies, small system regionalization, and updates to Act 537 sewage facilities plans.
Intended Outcome:	Updated, effective, consistent water and sewer planning.
Time Horizon:	2008-2009 and ongoing, with emphasis prior to municipal utility plan updates
Lead Partners:	Municipal Authorities; Watershed Organizations; Lebanon County Planning Department
Support Partners:	Private Water Companies; Lebanon City/County GIS Department
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Act 537 Sewage Facilities; Growing Greener II
Action 5A3:	Expand water distribution and sewage collection service areas throughout designated growth areas and minimize extensions into designated open space areas except in the case of threats to public health.
Intended Outcome:	Target growth to planned growth areas.
Time Horizon:	2008-2009 and ongoing, with emphasis after municipal comprehensive plan updates
Lead Partners:	Municipal Authorities; Lebanon County Planning Department
Support Partners:	Private Water Companies
Funding Sources:	Pennsylvania Infrastructure Investment Authority (PENNVEST) (loans and grants); Pennsylvania Department of Environmental Protection (DEP) Growing Greener II

Action 5A4: Coordinate right-of-way planning and construction to minimize land consumption and land use impacts. Permit the use of local utility rights-of-way for recreational trails, where feasible.

Intended Outcome: Interconnected trail network.

Time Horizon: Ongoing with emphasis in 2014-2015 or as implementation of utility and recreation plans

Lead Partners: Municipalities; Municipal Authorities

Support Partners: Private Water Companies; Lebanon County Planning Department; Lebanon City/County GIS Department; LEBCO MPO

Funding Sources: Pennsylvania Infrastructure Investment Authority (PENNVEST) (loans and grants); Pennsylvania Department of Environmental Protection (DEP) Growing Greener II

Objective 5B: Maintain water and wastewater treatment facilities that provide adequate capacity for planned development and that meet water quality standards.

Action 5B1: Support efforts to upgrade treatment capacity and treatment processes to meet established standards, particularly in instances of corrective action plans.

Intended Outcome: Treatment capacity to accommodate planned growth and treatment quality that meets state and federal standards.

Time Horizon: Ongoing

Lead Partners: Municipalities; Municipal Authorities

Support Partners: Watershed Organizations; Pennsylvania Department of Environmental Protection

Funding Sources: Pennsylvania Infrastructure Investment Authority (PENNVEST) (loans and grants); Pennsylvania Department of Environmental Protection (DEP) Growing Greener II

Action 5B2: Develop an educational program to inform the public of the need for on-lot disposal system management programs to protect public health and prolong sewage system life.

Intended Outcome: Increased public understanding of the relationship between on-lot disposal systems and groundwater resources.

Time Horizon: 2010-2011 in conjunction with municipal comprehensive plan implementation

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities; Municipal Authorities; Lebanon City/County GIS Department

Funding Sources: Pennsylvania Department of Environmental Protection (DEP) Growing Greener II

Action 5B3:	Increase the use of on-lot disposal system management programs as a means to protect water quality and prevent malfunctions.
Intended Outcome:	Increased groundwater resource protection through improved on-lot system management.
Time Horizon:	2012-2013 in conjunction with municipal comprehensive plan implementation
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Lebanon County Planning Department
Funding Sources:	Municipalities
Action 5B4:	Provide model ordinance language to the county and municipal subdivision and land development ordinances to address recurring recommendations: <ol style="list-style-type: none">1. Preliminary hydrogeological analyses for subdivisions proposing OLDS.2. Denial of planning module waivers that create lots which do not have adequate area or conditions for a replacement OLDS.3. A capped sewer ordinance to require installation of capped sewers may be required by the municipality for land developments in areas which are proposed for public sewer service within five or ten years.
Intended Outcome:	Increased groundwater resource protection and strategic infrastructure system development
Time Horizon:	2012-2013 in conjunction with municipal comprehensive plan implementation
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Lebanon County Planning Department
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Objective 5C:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.
Action 5C1:	Review and revise water and sewer service area datasets with local municipalities and authorities.
Intended Outcome:	A state-of-the-art GIS capable of providing data analysis and mapping for county and municipal planning activities.
Time Horizon:	2010-2011
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Lebanon City/County GIS Department
Funding Sources:	Municipalities
Action 5C2:	Update water and sewer service area datasets upon approval of comprehensive plans, sewage facilities plans, and private development plans.
Intended Outcome:	A state-of-the-art GIS capable of providing data analysis and mapping for county and municipal planning activities.
Time Horizon:	Ongoing
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Lebanon City/County GIS Department; Lebanon County Planning Department
Funding Sources:	Municipalities

Goal 6:	Facilitate private utilities planning in support of planned growth.
Objective 6A:	Identify existing and emerging telecommunications infrastructure, particularly that which is crucial for retaining and attracting businesses.
Action 6A1:	Inventory existing service areas, identify areas of service need, quantify service demand, and conclude feasibility.
Intended Outcome:	Reliable, high speed access to the Internet.
Time Horizon:	2012-2013
Lead Partners:	Private utility service providers; Chamber of Commerce; Lebanon Valley Economic Development Corporation; Major Employers; Public Agencies
Support Partners:	Lebanon City/County GIS Department; Lebanon County Planning Department
Funding Sources:	Municipalities (technical assistance)
Objective 6B:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.
Action 6B1:	Develop datasets for natural gas service areas and high-speed telecommunications services, i.e. T-3, broadband, etc.
Intended Outcome:	A state-of-the-art GIS capable of providing data analysis and mapping for county and municipal planning activities.
Time Horizon:	2012-2013 concurrent with utility planning and ongoing
Lead Partners:	Private utility service providers; Chamber of Commerce; Lebanon Valley Economic Development Corporation; Major Employers; Public Agencies
Support Partners:	Lebanon City/County GIS Department; Lebanon County Planning Department
Funding Sources:	Municipalities (technical assistance)

Goal 7:	Provide adequate facilities for county and local government administration and affiliated service agencies.
Objective 7A:	Provide modern, secure facilities for government and affiliated social service agencies consistent with service and programming needs.
Action 7A1:	Evaluate the adequacy of existing facilities and identify deficiencies that need to be addressed.
Intended Outcome:	Modern, functional facilities for the administration of services.
Time Horizon:	2012-2013
Lead Partners:	County; Municipalities
Support Partners:	County Service Departments; Elected Offices
Funding Sources:	Municipalities; Foundations
Action 7A2:	Program investment to upgrade or place facilities, as needed.
Intended Outcome:	Modern, functional facilities for the administration of services.
Time Horizon:	2014-2015 and ongoing as financial resources are programmed and available
Lead Partners:	County; Municipalities
Support Partners:	County Service Departments; Elected Offices
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Shared Municipal Services program
Objective 7B:	Maintain services and programs that meet local needs.
Action 7B1:	Perform regular community assessments and surveys to identify community needs. Revise services and programs, as needed.
Intended Outcome:	Prioritized needs for community services.
Time Horizon:	Every four years, or as agreed by partners
Lead Partners:	Municipalities; Municipal Authorities; United Way
Support Partners:	Lebanon County Planning Department; Lebanon County Community Action Partnership
Funding Sources:	Municipalities; Foundations

Action 7B2: Consider publishing progress (or regress) in meeting community service needs in an indicators report.

Intended Outcome:	Reporting, prioritizing and motivating tool for community services.
Time Horizon:	Every two years or as agreed by partners
Lead Partners:	Municipalities; Municipal Authorities; United Way or other data collection/compilation partner
Support Partners:	Lebanon County Planning Department; Lebanon County Community Action Partnership
Funding Sources:	Municipalities; Foundations

8

Economic Development Plan

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The Economic Development Plan for Lebanon County focuses on four critical topics: the promotion, expansion and diversification of existing business and industry; the development of the workforce; economic investment in conjunction with community development; and organizational cooperation. The Action Plan identifies a variety of actions for the county to undertake or to support in order to further its economic development objective and achieve its economic goal. The actions are designed to build upon the strengths identified in the previous section, to address the county's weaknesses, to capitalize on the opportunities, and to prepare a defense against the threats. The action plan recognizes the limited resources available within the county. Accordingly, it avoids extravagant initiatives and emphasizes regional cooperation and careful institutional coordination. It relies heavily on actions that can achieve the most benefits per given cost (e.g., actions that further multiple objectives at once, such as workforce development). And finally, it applies business development efforts in a strategic fashion to a limited set of targeted industries.



The plan is presented in three parts. The first section is an overview of key findings from the *Economy and Employment Profile, Background Study #3*, and additional analysis of leading industries, followed by a composite analysis of Lebanon County's economic strengths, weaknesses, opportunities and threats. The second section presents a summary of potential target industries for Lebanon County. The third section is the action plan, framed by the goals and objectives and discussion of the interrelationships between action items.

MPC Requirement: *In preparing the comprehensive plan, the planning agency shall make careful surveys, studies and analyses of housing, demographic, and economic characteristics and trends; amount, type and general location and interrelationships of different categories of land use; general location and extent of transportation and community facilities; natural features affecting development; natural, historic and cultural resources; and the prospects for future growth in the municipality.*

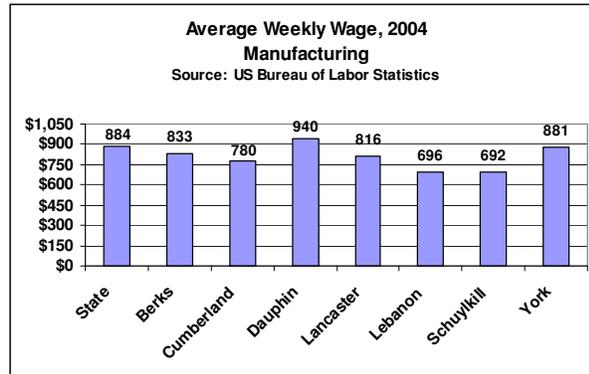
MPC Article III, Section 301.2

Overview Findings from the Economic Profile

Employment and Unemployment

- Employment has been growing in Lebanon County, but considerably slower than in the South Central region. Total county employment in 2003 was only 15% higher than in 1980, in contrast to 40% for the region overall.

- Lebanon County has the distinction of having the lowest unemployment rates in the region in 2005: 3.5%.
- Despite the low unemployment rate, wages paid to persons working in the county are among the lowest in the region. This disparity is true across various economic sectors.
- According to the 2000 Census of Population and Housing, 80% of the people who work in Lebanon County live in the county.
- Dauphin, Berks, Lancaster, Schuylkill, Cumberland, and York counties each provide at least one percent each of employees working in Lebanon County and comprise the “labor shed” for Lebanon County.
- Lebanon County is below the state and regional averages in both attainment of high school diplomas and bachelor’s degrees.



Industrial Structure

- The following industries each comprised over 10% of total employment in Lebanon County in 2003. Each industry’s percentage of total earnings is provided for comparison.

Industry Cluster	% of Total Employment	% of Total Earnings
Manufacturing	17%	24.1%
Miscellaneous Services (other than health care and social services)	14.6%	9.4%
Retail Trade	14%	9.1%
Government and Government Enterprises	13.5%	13.5%
Health Care and Social Assistance	11.9%	11.9

Source: US Bureau of Economic Analysis

- At the 3-digit level of the North American Industrial Classification System (NAICS), the top five industries by percent of county employment in 2003 were:
 - ✓ Food services and drinking places (7.1%)
 - ✓ Food manufacturing (5.9%)
 - ✓ Nursing and residential care facilities (5.2%)
 - ✓ Ambulatory health care services (4.5%)
 - ✓ Food and beverage stores (4.1%).

- Lebanon County has 17 export subsectors, as defined by location quotients greater than 1.5. The location quotient is a commonly used tool to determine an area's specialization in a given industry as compared to a reference region, in this case, the U.S. Traditionally, a location quotient well over one suggested that the sub-sector was one in which the county exported product outside its borders, providing a net source of income into the analysis region. Today, such "export" subsectors or industries are often referred to as "traded" subsectors or industries. These subsectors with top location quotients are ranked in descending order of employment in Table 8-1. Light shading indicates a positive position for that subsector for Lebanon County. Darker shading indicates a concerning indicator, namely a decline in employment nationally or in the county over the period 2001-2004. Subsectors with average weekly wages higher than the county average are also indicated with light shading. Subsectors with several lightly shaded cells are thus key subsectors for the county.

Table 8-1 Sub-sectors with Location Quotients Greater than 1.5

NAICS	Subsector Name	Lebanon County		U.S. Change		Avg. Weekly Wage, Lebanon County	
		2004	Change from 2001	2001-2004			
		%	LQ	#	%	%	
	Total, all industries	100.0%	1	1,324	3.6		\$555
311	Food products	6.3%	4.6	232	10.8	-4.1%	\$561
623	Nursing and resid. care facilities	5.1%	2.0	139	7.8	5.7%	\$452
484	Trucking	3.5%	2.8	369	38.2	-2.3%	\$689
332	Fabricated metals	2.5%	1.8	36	4.0	-10.8%	\$760
321	Wood products	2.2%	4.4	13	1.6	-3.9%	\$721
425	Electronic mkts, agents, brokers	1.8%	2.8	238	53.5	15.5%	\$677
337	Furniture	1.7%	3.2	112	21.1	-11.6%	\$610
325	Chemicals	1.7%	2.1	78	13.8	-7.6%	\$1,134
485	Ground passenger transportation	1.3%	3.8	18	3.7	1.8%	\$223
447	Gasoline stations	1.3%	1.6	13	2.8	-5.1%	\$328
327	Nonmetallic minerals	1.1%	2.5	-42	-8.9	-8.2%	\$649
493	Warehousing	0.9%	1.8	152	79.2	8.8%	\$589
331	Primary metals	0.8%	2.0	-356	-52.9	-18.2%	\$596
562	Waste mgmt & remediation	0.6%	1.8	70	51.1	3.3%	\$617
315	Apparel	0.5%	1.9	-262	-58.6	-33.2%	\$333
112	Animal production	0.3%	1.7	16	14.5	3.2%	\$400
519	Other informatin services	0.1%	3.0	1	2.0	7.4%	\$321

Source: U.S. Bureau of Labor Statistics, 2006.

Competitiveness of Leading Industries

The competitiveness of the 17 exporting subsectors of Lebanon County's economy is a critical factor in selecting industries to target for recruitment and retention. A brief "state of the industry" summary for each of the 17 leading industrial subsectors in Lebanon County is provided below, including employment trends, average wages, and examples of local companies. While Table 8-1 presents the leading subsectors by their size of employment, the narrative summaries below are organized by the larger or more general industrial sectors to which these 17 subsectors belong.



Agriculture, Forestry, Fishing and Hunting

Agriculture and Animal Production (NAICS 112)

Agriculture continues to thrive as an important component of the county's economy. In fact, a number of important measures indicate that agriculture has been growing. Total land classified as farmland by the USDA Agricultural Census increased by about 19% to 125,000 acres over the ten-year period ending in 2002.^{1,2} The total value of agricultural products sold increased by 45% over the same period, despite flat and falling product prices, therefore, reflecting very impressive increases in volumes sold. Since 1997, the value of products sold has increased faster in the county than in the state overall.

Animals and animal products dominate farming in Lebanon County. The value of livestock, poultry, and their products represents more than nine out of every ten dollars in agricultural product sales in the county. More county farms sold cattle or calves than sold hogs or pigs in 2002. However, when measured by number of units sold, hog and pig farms clearly dominate, with over half a million sold in 2002, compared to over 31,000 cattle and calves. Moreover, the number of hogs and



¹ The USDA modified its definitions of "land in farms" between the 1992 and 2002 censuses. This change brought additional lands into classification as "farmland", which may account for a portion of this increase.

² The definition of "farmland" can vary from one agency to another. The classification of land use and land cover presented in *Chapter 5, Land Use Plan* excludes the homestead and forest-covered acreages and therefore results in lower farmland figure of 99,996 acres.

pigs sold has increased three-fold from 1992 to 2002. Livestock farming is also important in much of the rest of the south central Pennsylvania region as evidenced by the regional location quotient of 2.0.

Animal production is very modest in terms of total covered employment, but its high location quotient reflects the prominent role of poultry and livestock (especially hog) production in the county. According to the Economic Contribution of Forestry to Pennsylvania published by the Penn State School of Forest Resources, agricultural processing adds an estimated \$81 million to the local economy, thus illustrating the importance of livestock and poultry production to the county's economy beyond the farms themselves. This same report estimates that the annual economic contribution of the agricultural production sector to Lebanon County is approximately \$24.5 million dollars.

Farming is just one component of an overall agricultural cluster that is extremely prominent in the local and regional economies. This cluster includes the upstream businesses that make products used by farms, such as feed, seed, fertilizer and equipment dealers, as well as the downstream industries that purchase farm products, such as poultry processors, meat products manufacturers, and other food manufacturers. In order to sustain these related businesses, land developed as farmland needs to be recognized as "developed" for its productive and profitable contribution to the economy.

Manufacturing

Food Products (NAICS 311)

The manufacture of food products tops the list with the highest employment as well as the highest location quotient. Rather remarkably, employment in food production increased by 11% in the county, despite a decline across the United States. The average weekly wage in 2004 was \$523, which is respectable, but not particularly high. Leading food producers in Lebanon County include several large poultry processors, meat processors and food packagers. Food production is big business for the region overall: Berks, Lancaster, Dauphin, and York counties all have location quotients over 1.5. The region's agricultural production and excellent accessibility to consumers in the Mid-Atlantic give it important advantages in food production.



Fabricated Metals (NAICS 332)

The fabricated metals subsector includes a variety of metalworking industries that make products ranging from sheet metal used as an intermediate product in other goods to prefabricated metal buildings. County employment in this subsector totaled nearly 1,000 employees in 2004. As in several others of the listed subsectors, fabricated metals saw local employment growth, despite a national decline, which is testament to the county's strength in the subsector. The average weekly wage is the second highest among the listed subsectors, at \$760 per week. This subsector is also prominent in other regional

counties, including Lancaster, York, and Schuylkill. Butler Manufacturing, makers of prefabricated metal buildings, is by far the single largest local employer in this subsector.

Wood Products (NAICS 321)

The wood products sector ranks second on location quotient. It is also a key industry subsector in that it employs a significant percentage (2.2%) of employees and has compensation per employee that is well above average. A slight concern is that the number of jobs has been relatively unchanged in the county, and has declined by nearly 4% nationally. Of the seven counties examined, only Schuylkill and Lancaster counties have location quotients over one. Weaber's Sawmill, with over 500 employees, dominates local employment in this subsector. The county is also home to several other intermediate wood products manufacturers, including producers of millwork and structural wood products such as trusses. As with food production, the availability of local raw material and accessibility to the large Middle Atlantic market explain a great deal of the county's prominence in wood products industries. In addition, the wood products subsector is part of a locally important cluster of industries that includes furniture making, discussed below.



Furniture (NAICS 337)

Lebanon County has a specialization in wood furniture manufacturing, with a location quotient of 3.2, and 1.7% of total employment. This subsector has two other very positive characteristics. Employment grew by 21% between 2001 and 2004, despite a national decline of nearly twelve percent. Moreover, at \$610 per week in 2004, wages were comfortably above the county average. The county has the distinction of being home to several mid-sized cabinet manufacturers, namely Rich Maid Cabinetry, Plain and Fancy Kitchens, and Kountry Kraft Kitchens, along with a number of other cabinetry and wooden furniture manufacturers. Two other regional counties with a specialty in furniture manufacturing are Lancaster (location quotient of three) and York (location quotient of two). Overall, the county is in a very good position in the wooden furniture industries due to the combination of local and regional lumber supplies, a local Pennsylvania Dutch tradition of quality craftsmanship, and accessibility to a large market of homebuilding and home remodeling.

Chemicals and Chemical Products (NAICS 325)

The chemicals subsector is prominent in Lebanon County thanks to the presence of the pharmaceutical industry, namely Bayer Healthcare. This subsector also includes the several fertilizer producers located in the county. Employment was equal to that of the furniture subsector in 2004, with each employing 644 workers. Job growth was positive locally, with 78 jobs added (a 14% increase), while employment declined by nearly 8% nationally. At well over \$1,000, the average weekly wage is by far the highest among goods producing subsectors. Lebanon County clearly stands out among its neighbors in its specialization in chemical production. Schuylkill County is the only neighboring

county with a location quotient over one. Berks and Lancaster Counties have greater numbers of employees in this subsector, but their percentages are much lower because their economic bases are significantly larger.

Nonmetallic Minerals (NAICS 327)

Nonmetallic minerals production is a broad subsector that includes the processing of locally quarried construction aggregates, as well as the manufacture of glass and glass products. Employment in this subsector has declined at roughly equal rates locally (-8.2%) and nationally (-8.9%). The average weekly wage, at \$649, is substantially above the \$555 all-industry average. Nonmetallic minerals manufacturing is fairly well represented across the region, and is particularly notable in York and Cumberland Counties. Employment in this subsector is roughly evenly divided between construction materials and glass products, particularly the glass pharmaceutical containers made by the Schott Pharmaceuticals Corporation.

Primary Metals (NAICS 331) and Apparel Production (NAICS 315)

Primary metals and apparel production are both suffering domestically due to competition from lower cost offshore suppliers. Primary metals are typically commodity products in which it is difficult for local suppliers to compete through product differentiation; competition is almost strictly on the basis of cost to the buyer (price plus transportation). Despite modest wages, domestic apparel continues to struggle to compete with even lower labor costs abroad. Therefore, both of these subsectors are viewed as declining industries, and not suitable as a basis for further economic development.

Wholesale Trade

Electronic Markets and Agents and Brokers (NAICS 425)

Electronic markets and agents and brokers is a subsector of the wholesale trade sector that consists of business that conduct wholesaling or product brokering using the Internet. This subsector is new to the revised (2001) NAICS industry categorization scheme. Its rapid introduction and growth and relatively large presence in the county is not fully understood, but the fact that employment in other wholesaling subsectors declined over the same period suggests that at least part of its growth is due to a technological change in the way some wholesalers do business, or at least in how they have been categorized as doing their business.

Retail Trade

Gasoline Stations (NAICS 447)

Similarly, employment at gasoline stations is relatively significant in terms of raw numbers, but jobs are apparently largely part time based on the low average wage (\$328). Only thirteen jobs were added locally over three years. Moreover, the retail nature of the business and the fact that the location quotient is only slightly over one, mean that this industry is not a base for further economic development.

Transportation and Warehousing

Truck Transportation (NAICS 484)

Trucking stands out for its very impressive growth: over 369 jobs were added between 2001 and 2004 – a growth rate of 38 percent. In contrast, trucking employment fell by 2.3% nationally over the same period. Trucking also rates well in pay with an average weekly wage per employee of \$674, which is well over the county average of \$555 for all private employment. A closer look at the truck employment figures reveals that both local and long distance trucking are prominent in the county. Among south central Pennsylvania counties, only Cumberland County has a higher location quotient for trucking than Lebanon County. The remaining counties show only modest specialization in truck transportation. Arnold Industries, New Penn Motor Express, and Swift are three large trucking companies located in the county. Lebanon County’s location along I-78, I-81, and the Pennsylvania Turnpike, its one day access to Middle Atlantic Markets, and the strength of goods producing industries in the county all contribute to the prominence of the trucking industry in the county.

Warehousing and Storage (NAICS 493)

The warehousing and storage industry ranks 12th on the list but is discussed here because of its fit within the logistics cluster, which includes a variety of industries involved in the storage, transportation, and distribution of goods. The county’s locational advantages also lend themselves to strength in this industry, which is supported by the remarkable growth in employment in this sector between 2001 and 2004.



Employment grew by nearly 80% (152 jobs) in the county from 2001 to 2004, while growing nearly 9% nationally. The average wage per employee of \$589 in 2004 is modest but respectable, at slightly over the county average of \$555. It is roughly comparable to wages in food production, which is another subsector reliant on relatively low skilled labor. The industry is very strong in nearly all of the south central Pennsylvania counties analyzed. Cumberland County leads the group, with a location quotient of 9.4, followed by Schuylkill County with 6.2. The warehousing and distribution facilities are clustering in the northern part of Lebanon County along I-78 and I-81. Locational advantages and affordable land have been strong attractors leading to industry growth without recruitment.

Ground Passenger Transportation (NAICS 485)

The subsector with the third highest location quotient is in the transportation sector: ground passenger transportation. The prominence of this subsector in employment is largely due to the presence of D.B. Fisher Bus Company and M. A. Brightbill Body Works. The very low average wage (\$223) reflects that a great deal of employment is part time. For these reasons, this subsector is not regarded as one of the key industries upon which the county can build an economic development strategy.

Administrative, Support and Waste Management and Remediation Services

Other Information Services (NAICS 519)

The subsector “other information services” has a very high location quotient, but, with just 52 employees in 2004, a very low average wage of \$321, and essentially no local job growth, the subsector is not regarded as significant or potentially significant in the county’s economy.

Education, Health and Social Services

Nursing and Residential Care Facilities (NAICS 623)

Over 5% of employees work at nursing and residential care facilities, which is nearly twice the national percentage. Employment has grown at a very respectable 8% locally and 5.7% nationally between 2001 and 2004, likely reflecting an aging local population. Major employers in this subsector include Cedar Haven, Cornwall Manor, and Evangelical Christian Church Retirement Village, among many other smaller facilities. Among south central Pennsylvania counties, Lebanon County has the highest location quotient, but all range between 1.2 and 2.0. Again, the prominence of this subsector is likely due in large part to the relatively elderly population of the region. It is worth noting that according to the data shown in the *Demographic Profile*, the senior population in the county is projected to increase from 16.4% in 2000 to just over 20% by 2020. This will likely increase the demand for these types of facilities.

Collective Perspective on Tourism

Tourism is not a NAICS subsector in itself, but is rather a part of several other subsectors in the NAICS categorization scheme including eating and drinking places and accommodations; museums, historic sites, zoos and parks; and amusements, gambling, and recreation. At best, these subsectors provide an indirect measure of the role of tourism in a county’s economy. A high location quotient is evidence that tourism may be



above average in a county. Indeed, the presence of Hersheypark and other Hershey-based attractions is reflected in Dauphin County’s location quotient of 2.1 for “amusements, gambling, and recreation”. On the other hand, Lancaster County is renowned as a tourism destination for so-called “Pennsylvania Dutch” attractions, sightseeing, and shopping, yet its location quotient is less than one in the subsectors listed above.

D.K Shifflet and Associates, Ltd. conducted statewide surveys of traveler spending in 2000 for PA DCNR in partnership with other state and federal agencies. Based on survey results, Shifflet estimated that visitors to Lebanon County spend approximately \$177,000 per year. Dauphin and Lancaster Counties each were estimated to have visitor spending over one million dollars. It is not surprising that tourism is not as economically prominent in Lebanon as in the widely known tourist destinations of Dauphin and Lancaster counties. The remarkably higher visitor spending in two of Lebanon County’s

immediately adjacent neighbors suggests the existence of untapped opportunities to capture more dollars from the region's visitors.

Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT Analysis)

The following section is an assessment of Lebanon County's economic strengths and weaknesses, as well as the opportunities and threats that could have an impact on the county's future economic development. This assessment, which is commonly referred to as a SWOT analysis, provides the foundation for an economic development strategy that constructively addresses these conditions to build on strengths, strengthen weaknesses, seize opportunities and reduces or mitigates threats. Much of the information is presented in the *Economy and Employment Profile*; however, it has been further refined using the results of the key stakeholder interviews conducted in 2005. Additional interviews with Lebanon Valley Economic Development Corporation (LVEDC), the Lebanon Valley Chamber of Commerce and others have also been conducted to further inform this analysis.

Strengths

- **Good Transportation Access to Major Markets.** Lebanon County is strategically located to serve and supply the markets of the northeastern US with relative ease. There is excellent highway access to these markets via I-81 and I-78. Also, Norfolk Southern Railroad's main line bisects the county, while Harrisburg International Airport is less than an hour away.
- **Workforce with a strong work ethic.** The county's workforce has historically had a strong work ethic. Its founding fathers were strong-willed and industrious, seeking to provide for their families and communities according to their stalwart religious and political beliefs.
- **Workforce Training Resources.** There are many workforce development and training resources available to place able workers in gainful employment and to assist employers in recruitment and retention of qualified employees.
- **A Base of Stable Industries.** There are a number of established industries and employers located in the county that are not subject to traditional business cycles, thus providing a degree of stability to the overall economy. Top industries in Lebanon County include agriculture and food processing, health care, and wood products. The agriculture and food products cluster is fully functioning in Lebanon County in that there is an interdependent web of industries supplying to and consuming from one another. In addition, the farming aspect of the cluster has functioning support institutions and associations.
- **A Growing Leading Employer.** Fort Indiantown Gap is another important asset and at the present time is the county's largest employer. A new brigade will be relocating to the Gap, and as a result, there are extensive plans for expansion and renovation of Gap facilities. In addition to the military facilities at the Gap, the

Gap hosts recreational opportunities and is located adjacent to the Indiantown Gap National Cemetery and the Pennsylvania Veterans Memorial.

- **Room to Grow.** The county has an ample supply of industrial and commercial sites available for new businesses or for expansion of existing businesses. LVEDC has acquired and developed several industrial parks. Most sites are shovel-ready and relatively affordable. In addition, there are seven (7) Keystone Opportunity Zones (KOZ sites) in the City of Lebanon that offer a variety of tax incentives.
- **Quality of Life.** The county is also well known for the high quality of life that residents enjoy, including a “small town” character, low cost of living, very good schools and community facilities, and opportunities for recreation.
- **Business-Friendly Institutions.** Commentary by those interviewed for this Comprehensive Plan and other business owners frequently indicated that doing business with Lebanon County is fair and straightforward. Having the County Planning Department handle many of the zoning and land development approvals helps to insure a high level of professionalism and consistency that is valued by business people. The LVEDC is another business friendly organization that is aggressive and creative in providing financing packages and other assistance services to businesses.



Weaknesses

- **Short Supply of Workers with English Language, Education, and Basic work-readiness Skills Requirements.** While the workforce is primarily considered a strong point, there are also some weaknesses, particularly in this period of very low unemployment. County residents have relatively low educational attainment levels when compared to the surrounding region. In addition, many of their skills are not matched to the types of family sustaining, high tech jobs the county would like to attract. Another weakness related to the workforce is the inability to retain and attract young educated people. The very low unemployment rate appears to have pressed low wage employers to seek workers among the most marginally employable of the labor pool, sometimes with consequent declines in basic “work readiness” skills.
- **Perception of Urban Decline.** The City of Lebanon has been characterized by some as a city in urban decline. This generalization is largely inaccurate. Pockets of the city have experienced neighborhood decline, but the city is working diligently to address both the symptoms and the causes of this neglect and disregard for community through the Blueprint Communities initiative, community policing program and other efforts. More importantly, there are

portions of the city that are thriving. Private investment is leveraging state funding to bring new business and jobs to the downtown.

- **Localized Road Congestion.** There are two key transportation related weaknesses in the county. Even though there is very good highway access to destinations outside the region, internal circulation is more challenging. First, traffic volumes continue to increase throughout the county, and particularly along the primary access corridors, including PA 422, PA 322, and PA 72. There is also limited public transportation service available in the county.
- **Scarcity of Higher End Retail Establishments.** The lack of these establishments within the county means that residents and tourists are going elsewhere for such amenities. This is commonly referred to as spending “leakages”.
- **Scarcity of Office Professional Employers.**
- **Land Use Patterns that reflect and increasing separation between job and home locations.**

Opportunities

- **Regional Growth.** Lebanon County is located in a region where economic growth is fairly strong. Residential growth is strong, and followed by growth in commercial retail establishments. There are many organizations working to further economic development in the region, e.g. SouthCentral Team PA, Inc. is a consortium of seven economic development organizations that have joined together to promote business opportunities in the south central region of Pennsylvania. Lebanon County can utilize these regional resources to enhance its own economic development efforts.
- **State Business Development Initiatives.** There is a strong commitment at the state level to aggressively address workforce development, including many programs that provide training at low to no cost to area residents and businesses. In addition, the Rendell Administration has recently completed (2004-05) a Performance Management Plan to better coordinate the 22 programs included in the Commonwealth’s Workforce Development System and make them more accountable.
- **Regional Institutions of Higher Education.** The various educational institutions in the county, including HACC, Lebanon Valley College, and the Lebanon County Career and Technology Center (LCCTC) are excellent resources; not only for their role as educators, but also for the promotion and encouragement of innovation and new business start-ups.

Threats

- **Anonymity.** At the present time, Lebanon County does not have a recognizable economic “identity”. Some residents feel that the county is invisible to investors except for residential developers. This “No one knows we’re here” attitude will need to be remedied in order for the county to compete effectively.

- **Globalization.** Global competition continues to increase and has had a significant impact on the entire state, particularly the manufacturing sectors. For commodity goods (goods that are not readily differentiated) that do not have major importation costs or barriers, Lebanon County producers will not be able to remain cost competitive against low cost suppliers such as those in China. The county will need to identify its role in the “new economy” and target its economic development efforts to achieve that role. As noted in *Manufacturing Pennsylvania’s Future*, it is important to “focus on innovation to improve business strategy, products or processes in order to drive growth or move up the value chain into more sustainable, profitable niches.”(Deloitte 2002, p.41)
- **The Domestic Food Industry.** Overall, the domestic food industry is mature with a number of products in commodity-type status, which allows stiff competition to squeeze profit margins on products such as pasta and canned fruits and vegetables. Consequently, processors need support in productivity enhancements to lower costs.
- **Changes in Agriculture.** Farming faces the challenge of dealing with environmental restrictions and increasing pressure of competing land uses and increasing land prices. Land use planning and zoning, the continued support of agriculture land preservation efforts, and assistance in meeting environmental mandates are ways to support agriculture in the county. Also, farming is supported directly and indirectly when there are thriving local food products industries that use local agricultural products. Agribusiness, in turn, depends on the continued vitality of farming to provide sufficient markets for its products and services.
- **Land Use Changes.** If not carefully managed and directed, land use changes can impair the county’s ability to offer a sufficient supply of sites for its targeted industries, and can also irrevocably damage the vitality of its agricultural sector, agribusiness industries, and forest products industries. Certain land use changes may hinder the achievement of economic development goals directly by using the site in a less than optimal use (e.g., commercial use of land that has rail access, housing development on prime agricultural land). A land use change can affect the supply of lands supporting economic development indirectly by placing an incompatible use adjacent to another parcel (e.g., heavy industry next to a tourism destination).
- **The availability of venture capital and financing options for new businesses is somewhat limited in the county.** Yet these funding sources are a critical element in the county’s economy, as the private markets have the greatest flexibility for new business development and expansions.

Combined Threat and Opportunity

- **In-migration.** The suburban residential growth in the county, fueled in large part by people relocating from elsewhere in the region, expands the market for retail and commercial services and thereby presents the opportunity for the county to diversify its economy. On the other hand, residential growth without commensurate commercial and employment growth can prove a severe burden on municipal budgets and can place demands on public infrastructure that make it difficult to attract industrial growth. The increase in the population of low-income, non-English speaking people (mostly Hispanic) presents additional threats and opportunities. The threats include the potential for cultural conflicts and the burden on municipal budgets associated with serving a burgeoning population of economically disadvantaged persons. This in-migration also brings with it an unprecedented opportunity to leverage the evolving cultural diversity and urban re-growth to bring renewed vitality to the county's urban centers. Furthermore, with aggressive language and other job readiness training, these new populations can be important contributors to the expansion of the county's workforce and business community.

Potential Target Industry Clusters for Lebanon County

The identification of industries that would make the best targets for support and recruitment efforts in Lebanon County began with a brief review of existing industry and industry cluster lists identified in the following recent statewide studies:

- **Targeted Industry Clusters** - Pennsylvania Department of Labor and Industry
- **Manufacturing Pennsylvania's Future** - Pennsylvania Department of Community and Economic Development, et al.
- **Rural Pennsylvania in the New Economy** - Center for Rural Pennsylvania
- **The Global Competitiveness Initiative (GCI)** - Pennsylvania Department of Community and Economic Development
- **The "Smart Market"**
- **Target Industries for Business Attraction** - Lebanon Valley Economic Development Corporation (LVEDC)

Several regional and local studies were also reviewed, including the Berks County Initiative for a Competitive Greater Reading and the Lancaster County Blue Ribbon Commission on Agriculture. The complete results of the analyses are summarized and grouped according to the nine "targeted industry clusters and sub-clusters" identified by the Department of Labor and Industry and are located in the *Economy and Employment Profile*.

Recommendations regarding the targeting of support and recruitment for industrial clusters and sub-clusters are summarized in Table 8-2. A recommendation of the "Primary Target" indicates that the county should actively target the cluster/sub-cluster. A recommendation of "Secondary Target" indicates that the cluster is already developed within the county; however, funding or workforce development support may be appropriate to further enhance the success of the cluster/sub-cluster.

Table 8-2 Recommended Target Industries for Lebanon County

Cluster/Sub-cluster	2002 Average Annual Wages	Recommendation
Life Sciences	\$39,366	By Sub-cluster
Bio-Medical	\$64,657	Primary Target
Health Care	\$36,763	Secondary Target
Business and Financial Services	\$42,845	Primary Target
Education	\$35,121	Secondary Target
Advanced Materials and Diversified Manufacturing	\$43,061	By Sub-cluster
Chemicals, Rubber and Plastics	\$46,643	Primary Target
Electronics	\$50,792	Secondary Target
Metals and Metal Fabrication	\$41,060	Primary Target
Building and Construction	\$40,927	Secondary Target
Agriculture and Food Production	\$26,308	By Sub-cluster
Food Processing	\$36,106	Primary Target
Information and Communication Services	\$56,742	Primary Target
Lumber Wood and Paper	\$34,317	Secondary Target
Average across targeted clusters	\$39,836	

The following is a brief summary of the industry clusters that have been identified as appropriate candidates for primary targeting in Lebanon County. A complete analysis for each of the industry clusters is found in the *Economy and Employment Profile*.

The **bio-medical sub cluster** is very attractive due to its domestic growth prospects and high output per worker rate. A typical facility makes only modest demands on local infrastructure (transportation, water and wastewater), is relatively benign in terms of environmental impact, and offers outstanding employee compensation. As such, the cluster is prized by nearly all economic developers across the country. Nevertheless, Lebanon County and the region in general are in a strong position to compete for industries in this cluster, particularly pharmaceuticals. Therefore, this sub-cluster, and pharmaceutical producers in particular, make very good targets for the county and region.

The Center for Rural Pennsylvania study found potentially untapped growth opportunity for the “**business and financial services**” categories, which nearly doubled in employment nationally and in rural areas of comparison states, but only grew by 50% in rural Pennsylvania. Lebanon County lags behind most of its neighboring counties in the percentage of its employment in credit intermediation; insurance carriers; real estate, rental and leasing; professional and technical services; management of companies; and administrative and support services. The fact that new, Class-A office space does not exist in the county, but is abundant in its neighbors to the east, south, and west, is testament to the very weak presence of this cluster in Lebanon County.

The Manufacturing Pennsylvania’s Future study found that south central Pennsylvania specializes in the architectural and structural metals segment of the **metals and metal**

fabrication cluster. With the exception of the presence of Butler Manufacturing in Annville (prefabricated metal buildings), the segment is not as notable in Lebanon County. The study also noted that much of the market for architectural and structural metals involves highly specialized, custom-made products, which affords relatively high profit margins and provides some protection against low cost foreign imports. A very strong local and regional presence, county wages that are well above average, and the fact that the sub-sector achieved growth locally despite substantial declines nationally, all argue for the inclusion of fabricated metals as a target subsector.

The **plastics sub-cluster** is recommended for inclusion as a target industry on the basis of it having already been selected by both the county and regional economic developers. Plastics bottling and packaging is especially promising for the region. In addition, there is potential for downstream tie-in to the flourishing regional food production cluster and the pharmaceutical industry. The county's location also provides a competitive advantage relative to transportation costs. Industry wages are above average and there are opportunities for benefits to other existing clusters, which also support the targeting of this sub-cluster.

The **agriculture and food production cluster**, encompassing all aspects of producing food from supplying farms to delivering products to the consumer, is strongly represented in the region and has excellent prospects for continued strength. The region's excellent access to consumer markets is a competitive advantage that is not expected to erode. Despite the overall modest wages in most of this cluster, its industries are currently an essential component of the county's and the region's economic foundation, and are expected to remain so. Agriculture, agribusiness, food processing, and plastic packaging (identified previously) are all worthy industries for targeting county economic development efforts.

The technical design and consulting services sub-clusters of the **information and communication cluster** have added the most jobs in this cluster in recent years, and at the cluster's average wage of \$56,700 (2002), the cluster presents an attractive opportunity for growth. The county's complete economic development, along with community development goals for such as revitalization of downtowns and retention of young professionals, is strongly interrelated with the further development of this cluster. While businesses are typically local service providers, their locational preferences, especially for small firms, are influenced by local amenities.

Current Initiatives

Business Start-Up Center at HACC Lebanon

HACC is one of several entities offering assistance to entrepreneurs and small businesses in the region. The Business Start-Up Center at HACC Lebanon is a new center dedicated to helping local entrepreneurs to be successful by providing hands-on technical assistance for the business' crucial first three years. The Start-Up Center offers one-on-one counseling, research, and workshops, as well as business plan creation and review. Special service programs are available for women and veterans..

Business Incubators in Lebanon County

Business incubators are facilities in which new companies can benefit from affordable rental rates, shared services and equipment, and ready access to professional, technical, and financial support programs. As such, a business incubator in Lebanon County would further the objectives of promoting innovation and process improvements and supporting start-ups. There are currently several prospects for a business incubator in various stages of consideration.

1. LVEDC completed a feasibility study that determined an incubator for new technology businesses would be feasible. It is intended that such an incubator would be located in the Aspens Business Park, a Keystone Opportunity Zone site owned by a local businessman, and developed with the assistance of LVEDC.
2. The HACC Lebanon Campus has an opportunity to develop an 85,000 square foot donated building in the City of Lebanon into a technology education center and business incubator focusing on innovative products in the agriculture and food products cluster. Such an incubator is currently only in the “idea” stage, and may be an early initiative for consideration by the Agriculture and Food Products Task Force that is proposed by this Plan.
3. The Regional Economic Development District’s Initiative (REDDI) is an economic development support institution serving Adams, Berks, Cumberland, Dauphin, Franklin, Lancaster, and Lebanon Counties. REDDI has commissioned an investigative team at Penn State Harrisburg to study the feasibility of a “virtual” business incubator for the region. The virtual incubator would make use of advanced telecommunications technologies to share business incubator support services among satellite incubator locations, with opportunities to tailor each satellite location’s focus to the specific industry needs and priorities of that area.

The county needs to be careful to insure that its objective of supporting innovative new businesses is met by at least one of these or other incubator initiatives, and is met cost-effectively, without expensive overlap of services. There is potentially room for two incubators, each serving different types of industries, although a phased implementation may be beneficial by offering opportunities to learn lessons from the first that can be applied to the second incubator.

The Smart Market

This marketing initiative of the SouthCentral Team PA aims to “brand” the south central region as a desirable location to attract new business investment in certain targeted industries, as identified in the previous Industry Targeting section. The initiative is beginning with creation of a Smart Market website. The project should have a mechanism in place to monitor feedback on its cost-effectiveness. It should also have a plan for phased extension into additional marketing channels, such as trade publications and shows, direct contacts to targeted site selection consultants, with monitoring at each phase to determine whether to continue use of the channel and whether to extend to additional channels.

Tourism Promotion

Tourist Promotion Agency’s outreach materials and event sponsorships are important to boosting visitor spending, as well as encouraging Lebanon County residents to be tourists in their own “backyard”. The county has several underappreciated treasures and many opportunities to develop new ones (e.g., the Lebanon Farmers’ Market project) that can capture day trip visits of travelers visiting nearby attractions in the Lancaster and Hershey areas. Increases in visitors will make the county more attractive to quality hotels, restaurants and other amenities that will encourage visitors to stay in Lebanon. By building awareness of the Lebanon Valley, tourist promotion can also indirectly benefit efforts to branding the county’s products. Some of the tourist promotion agency’s work also supports revitalization of the City of Lebanon.

Leading Roles for Local Economic Development Organizations

Lebanon Valley Economic Development Corporation

Financing Assistance

LVEDC helps businesses access financing options including various public supported loan programs, job training funding, and other grant and loan assistance. LVEDC also administers a Tax Increment Financing district, which allows new business construction to apply its projected future tax payments towards funding infrastructure improvements required for its support. The various financing programs can help further many of the plan objectives including workforce training, supporting innovation, supporting businesses that serve visitors and county residents, supporting business expansions, and attracting new facilities in targeted industries.

Maintaining an Inventory of Sites and Buildings

LVEDC maintains a database of available sites and buildings that can be accessed online, and offers personal assistance in locating the right site for a prospective business. LVEDC also owns and has developed two business parks: the Lebanon Valley Business Park and the Lebanon Rails Business Park. It has recently contracted with two construction firms to be designated builders in a new build-to-lease program for prospective site tenants. These functions, to date, are effectively providing an up-to-date working inventory of suitable sites and buildings for businesses in the targeted industries.



LVEDC will need to continually monitor the supply and demand of sites and buildings and be alert to opportunities to acquire strategic sites or to assist in the private development of additional sites. Sites should be accessible to existing infrastructure.

Redevelopment of brownfields and adaptive reuse of other vacant properties is recommended and should take priority. In addition, sites along the Norfolk Southern rail line should be targeted, so that the limited supply of rail-served land is preserved for uses that would most benefit from proximity to the line. In general, LVEDC should support site development within lands designated for the intended business use in the county's Land Use Plan. In addition, it is recommended that LVEDC be alert to opportunities to support the development of an office park or an urban office complex. The objective would be to support the diversification of the county's economy into additional white collar employment.

Technical Assistance to Local Businesses

LVEDC provides some technical assistance to county businesses, particularly in the areas of exporting and securing permits and other regulatory approvals. LVEDC also serves as an information clearinghouse to connect county business to one or more of the many other technical assistance providers. There are free and low-cost service providers to help businesses (particularly small and mid-sized ones) with a variety of product development, workforce training, process improvement, and marketing issues. LVEDC's matching services are available to any business that requests it.

In addition, the LVEDC is the local agent for the DCED Business Retention and Expansion Program (BREP). The BREP works by routinely conducting confidential interviews with a large number of county businesses of all types. The interviews are designed to identify two types of issues: (1) issues for which LVEDC can match the business with an appropriate assistance program (2) general issues in which local conditions are not conducive to the business' success, such as deficiencies in the transportation system. The BREP interview program can be a very effective tool to further its stated objective of supporting business "retention and expansion." However, the interview questions and selected mix of interviewees is determined in large part by DCED. LVEDC may need to create ways to flex the program in order to insure that it is getting the local information it needs and getting a sufficient sample of interviews from the industries selected for targeting.

The LVEDC BREP activities and technical assistance matching further a number of the Economic Development Plan objectives.

Recommended New Function

Convene a Bio-Medical Advisory Committee. The bio-medical cluster is identified in this plan as a high priority target, particularly the pharmaceuticals industry in the immediate term. It is recommended that LVEDC institutionalize its current relationships with local representatives of this cluster by encouraging their participation on an advisory committee. The committee would help to identify the priority issues facing the cluster in the county, and would provide marketing advice and leads for the LVEDC's efforts to recruit additional firms in the cluster to locate their new investments in the county.

Lebanon Valley Chamber of Commerce

The Lebanon Valley Chamber of Commerce is the primary business membership organization in the county. As such, its services and member benefits cater to the needs of local businesses, connecting them to the business development and management, employee recruitment and retention, marketing, or other services needed. The chamber has a continuing role to play in the advancement and sustainability of the county's economy.

The chamber should continue to promote the value and products of existing county businesses. In order to strengthen the local supply chain of products and services, these efforts should be directed to local public sector agencies, private sector companies and the public at large, as well as to prospective businesses that would benefit from knowing the extent and diversity of local suppliers. The chamber has historically done this through member events, including Business at the Expo, its annual Images of Lebanon Valley magazine, member directories, and other publications.



The chamber should also continue to provide members with ready access to workforce development and recruitment service. Local resources include the chamber's own community based education programs, TechBridge, the Lebanon Area Personnel Association and the Lebanon office of PA Careerlink. Regionally, the Southcentral Employment Corporation (SEC) and the South Central Workforce Investment Board (WIB) provide policy direction and funding for career development and worker training services in the region. SEC delivers core, intensive, and training services through the Pennsylvania Careerlink System. The chamber should encourage businesses to participate in the SEC's public-private industry consortiums for construction, logistics/transportation, health care and manufacturing, and where needed, suggest additional consortiums. In addition, the chamber should connect local businesses with the IU-13 and Lebanon County Career and Technology Center for specialized education and training needs for either existing or future workers.

Finally, the chamber should continue to coordinate with community and economic development partners. It should strengthen relationships among other economic development organizations and programs to enhance overall responsiveness to local business needs, continuing to exchange data, analyses, reports and publications as well as ideas for future initiatives. It should also continue to represent business interests in the public arena, participating in community planning and development discussions at the local, county and regional levels through participation in interviews and advisory committees, reviews of draft policy and regulations, and news articles of general public circulation. The contributions of the Chamber of Commerce will continue to be an important component of economic progress in Lebanon County.

Interrelationships of Economic Development to Other Elements of the Comprehensive Plan

Natural and Historic Resources

Several Lebanon County industries rely on specific, high quality natural resources for their success. Businesses in agriculture and food processing, forestry and wood processors, and mineral extraction have located in the county because the resources they need are readily available. The sustainable use of these resources ensures a future for these industries. The conservation of them protects quality of life for the local workforce.



These industries are deeply rooted in the county's history. Their historic and contemporary operations are of educational and sentimental interest to select tourism audiences. When interpreted for tourists or even the local public, heritage tourism can supplement the tourism economy with additional revenues.

Housing

Housing quality and choices have a direct effect on Lebanon County's economic condition. Housing choices can help retain young county natives and attract other young individuals and families to the county. Choices also enable residents to up-size and down-size their lifestyles to accommodate changing household and family needs, making older housing available to the market. Downtown housing offers community security to downtown businesses that close overnight. Prospective businesses carefully examine the housing choices a community has to offer before committing to relocation. Real housing choices also offer options for workers to live near their place of employment, thereby minimizing their commuting costs and time.

Land Use, Transportation and Infrastructure

Balancing the amount and location of housing with commercial and industrial sites not only reduces workers' travel costs and time, it also helps the public sector manage maintenance and expansion of the transportation system and public utilities. Furthermore, it helps balance the tax burden among property owners.

According to the 2006 Self Sufficiency Standard for PA Report, a family living in Lebanon County with one working adult, one stay-at home adult and three children would need to earn an annual income of \$45,265 OR an hourly wage of \$21.43 to meet basic needs, not including savings.

The average hourly wage for all occupations in the county in 2006 was \$15.75.

The complete Self Sufficiency Standard Report is available at www.pathwaypa.org. See the Economy and Employment Profile for more information about occupational wages in Lebanon County.

Community Facilities and Services and Recreation

The quality and diversity of community services, including public education, recreation, and public safety, as well as access to health care comprise other aspects of quality of life that business owners – existing and prospective – consider as they make their business development decisions. These services ensure that their workforce and families have what they need and want.

Recreation, Greenways and Open Space

Recreation, greenways and open space are significant economic generators. They increase property values. For example, property values near open space and golf courses increase at higher rates than properties with other kinds of views. They are also prime economic development and relocation magnets. Having lots of things to do in a community as well as trails, parks and recreation facilities helps to attract businesses and prevent the “brain drain”, the loss of young wage earners to other areas of the country. Recreation, sports and physical fitness activities, trails and the great outdoors help to improve work performance through increased productivity, decreased absenteeism, lower staff turnover and reduced on-the-job accidents.

Investment in parks, recreation, trails, sports and open space yields large economic returns in the form of money generated by events, capital development, and provision of ongoing services. In 2003, Pennsylvanians spent over \$11.5 billion on recreational activities such as hunting, fishing, sports participation, skating, winter sports and so on. Recreation revenues in Lebanon County totaled about \$103 million that year.



Action Plan

The Action Plan identifies a variety of actions for the county to undertake or to support to further its economic development objective and achieve its economic goal. The actions are designed to build upon the strengths identified in the previous sections, to address the county's weaknesses, to capitalize on the opportunities, and to prepare a defense against the threats. The Action Plan recognizes the limited resources available within this relatively small county. Accordingly, it avoids grandiose initiatives, focusing instead on regional cooperation and careful institutional coordination, as well as on actions that can achieve the greatest benefits per given cost. In addition, it strategically applies business development efforts to a limited set of targeted industries that will bring new dollars into the county.



The set of actions addressing workforce development are perhaps the single most important element of this plan. The county's workforce is its most limiting factor in supporting the expansion of existing business and attraction of new business. As a corollary, improving the skills of its workers is essential to getting and keeping them in stable, good paying jobs.

Another essential plan component is the set of actions aimed at the economic health of the City of Lebanon. While a comprehensive strategic urban revitalization plan is beyond the scope of this Economic Development Plan, the plan does highlight a number of actions that the county can undertake or support that would help to reverse the city's economic decline.

Several actions are aimed at furthering economic development indirectly by addressing the function of certain institutions involved with economic development. These actions include the formation of Cluster Task Forces for Agriculture/Food Products and for Wood Products, formation of an advisory committee for the bio-medical cluster, and by placing specific responsibilities for Economic Development Plan implementation with the County Planning Department. The remaining actions encompass various other means by which businesses are supported. These actions range from small business assistance programs to providing sites and needed infrastructure to the recruitment of new investment in targeted industries.

The Action Plan begins with the vision, goals and objectives that the plan intends to achieve. Recommendations are presented in an approximate order of implementation under each objective. Annual priority-setting may adjust this order based on public support, available funding, or other time-sensitive criteria. For each action, an intended outcome, a proposed time horizon, a lead and support organization(s), as well as additional information about financial resources is included. Two summary charts have been compiled to help visualize how the various plan elements fit together. Finally, the plan concludes with a listing of organizations that are involved in economic development and/or business support.

Vision, Goals and Objectives

Vision

An economy that offers stable employment and family-sustaining wages and benefits, locates or links jobs with housing, transportation and employee services, sustains natural resources, and contributes to the community.

Goal

Retain and expand existing businesses and attract new businesses that enhance the overall quality of life of county residents by meeting all or most of the following characteristics:

- Pose minimal to no environmental degradation
- Provide stable jobs
- Offer job compensation (wages & benefits) that is family-sustaining
- Are net contributors to the tax base
- Pose minimal to no impact on the transportation system (after any associated improvements)
- Are located in central business districts or within walkable distance of existing or planned neighborhoods or accessible by public transportation and/or are located on underutilized properties or brownfields/greyfields where infra-structure investment has already been made
- Adhere to high quality design and construction standards that are compatible with surrounding areas.

Objectives

Specific objectives have been defined to direct effort and investment in these economic development areas:

- A. Promote the value and products of existing county businesses and provide other needed support to keep those businesses competitive.
- B. Foster a Job-Ready Workforce.
- C. Direct economic investment compatible with growth management goals for urban revitalization, suburban expansion, and rural resource production.
- D. Improve coordination among all stakeholder agencies.
- E. Coordinate land use planning and infrastructure investment for economic stability and smart growth.

Recommendations

Goal 1:	Retain and expand existing businesses and attract new businesses that enhance the overall quality of life of county residents.
Objective 1A:	Promote the value and products of existing county businesses and provide other needed support to keep those businesses competitive.
Action 1A1:	Assemble task forces for Agriculture and Food Products and for Wood Products to guide economic development in these resource based industries , including the investigation of opportunities for biofuels production. Include industry representatives from the entire supply chain from production operations (farms, forest landowners) to processing and distribution businesses to marketing offices and agencies.
Intended Outcome:	Maximize efficiency of economic development efforts by avoiding overlap of roles and functions and by helping to identify and prioritize needs of businesses in the cluster. Maximize synergies within the cluster by promoting communication and networking among the different types of businesses and stakeholders at both a local and regional level.
Time Horizon:	2008-2009
Lead Partners:	Convened jointly by a county agricultural organization (the Conservation District, Cooperative Extension Service, and/or the Farm Bureau) and LVEDC.
Support Partners:	Ongoing staff support by organization to be determined at initial meeting.
Funding Sources:	Lebanon County Commissioners; some administrative and secretarial support (e.g., keeping and distributing meeting minutes) will be required to keep the task forces functional
Action 1A2:	Develop and implement a comprehensive agricultural sustainability strategy. <ol style="list-style-type: none"> 1. Coordinate municipal long range planning acknowledging farming as a developed land use. 2. Establish a farmland preservation target, criteria for preservation, and permanent funding to achieve target. 3. Establish a program to educate farmers on financial matters, maintaining operation of existing farms and transitioning farms to new farmers. 4. Evaluate the feasibility of a county or regional "brand" for products made in Lebanon County. The brand is a logical choice for marketing agricultural, food and wood products that are literally grown in the county but need not be limited to them. (Natural Resource Plan, Goal 3, Objective A, Action Items 1-3)
Intended Outcome:	Support all three aspects of the agricultural industry: land, farmer, and market.
Time Horizon, Partners and Funding Sources:	See Recommendations under Goal 3 of the Natural Resources Plan

Action 1A3:	<p>Increase agri-tourism within the county.</p> <ol style="list-style-type: none"> 1. Identify farms using innovative farming practices. 2. Establish a heritage farm recognition/certification program. 3. Establish an historic barn recognition program. 4. Develop a Blue Ribbon Passport Program for Lebanon County. 5. Evaluate local designation of agri-tourism routes as scenic byways; consider nomination of appropriate route to the state scenic byways program to qualify for statewide promotion and additional transportation enhancements funding. <p>(Natural Resource Plan, Goal 3, Objective B, Action Items 1-4)</p>
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Intended Outcome: Foster opportunities for additional farm income and promote the county’s agricultural heritage.

Time Horizon, Partners and Funding Sources: See Recommendations under Goal 3 of the Natural Resources Plan

Action 1A4:	<p>Support the Business Start-Up Center at the HACC Lebanon Campus.</p>
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Intended Outcome: Continued technical assistance services to support small business development.

Time Horizon: 2008, with annual resolutions thereafter

Lead Partners: HACC

Support Partners: County Commissioners; LVEDC; Lebanon Valley Chamber of Commerce

Funding Sources: The HACC Lebanon Campus is supported by the state and contributions of member school districts. The county support is not expected to involve capital investment at this point.

Action 1A5:	<p>Support the establishment of a business incubator to nurture startup companies in one or more of the targeted industries and clusters.</p>
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Intended Outcome: Expansion of facilities and services to support new business development.

Time Horizon: 2008-2009

Lead and Support Partners: Ownership and management decisions for the incubator(s) are important decisions that need to be made by the project sponsors. LVEDC’s counterpart in Cumberland, Dauphin, and Perry Counties (CREDC) owns and operates a business incubator in Carlisle—the Murata Business Center. The virtual incubator concept being studied for REDDI may offer an alternative owner/operator.

Funding Sources: A business incubator involves a substantial investment in up-front capital as well as ongoing operations. Tenant rent would cover only part of the program costs. A variety of outside funding support is available, including the Ben Franklin Technology Partnership.

Action 1A6:	Support the development of minority-owned businesses throughout the county to enhance economic diversity and development.
Intended Outcome:	Better business support services and opportunities for employment for an underserved segment of the county's population.
Time Horizon:	2008-2009
Lead Partners:	City of Lebanon Office of Community Development; Lebanon County Women's Commission (appointed by County Commissioners); Lebanon Valley Charter Chapter of American Business Women's Association; Women in Business (hosted by the Chamber of Commerce); League of Women Voters
Support Partners:	LVEDC; Lebanon Valley Chamber of Commerce; HACC Small Business Development Center; League of Women Voters
Funding Sources:	Minority Business Development Authority; New Pennsylvania Venture Capital Investment Program; PennCAP; Small Business First
Action 1A7:	LVEDC continues its various functions in support of existing businesses and attracting new investment and considers extending some functions.
Intended Outcome:	Strategic leadership by the LVEDC.
Time Horizon:	2008-2009
Lead Partners:	Lebanon Valley Economic Development Corporation, including its staff and member companies, who are not only financial contributors, but also can be tapped as an important source of business intelligence and issue identification.
Funding Sources:	LVEDC is supported by member contributions, and also obtains revenues in its capacity as financier and business site owner
Action 1A8:	Participate in and draw from the SouthCentral Team PA Smart Market.
Intended Outcome:	Increased rate of business growth and retention.
Time Horizon:	2008-2009
Lead Partners:	LVEDC
Funding Sources:	LVEDC funds (staff participation)

Action 1A9:	Expand and diversify the promotion efforts of the Lebanon County Tourist Promotion Agency and the Lebanon Valley Expo Center to highlight niche tourism sectors such as heritage tourism, outdoor recreational tourism, agri-tourism and eco-tourism.
Intended Outcome:	Expansion of tourism themes. Increased revenue from tourism.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Tourist Promotion Agency
Support Partners:	Lebanon Chamber of Commerce; Cooperative Extension Service; Local merchants; Pennsylvania Tourism Office
Funding Sources:	Current sources plus a percentage of tourist related sales tax, e.g. hotel tax
Action 1A10:	Encourage public agencies and organizations that operate in the county to purchase supplies from local companies.
Intended Outcome:	Strength in the local supply chain and increased employment opportunities for county residents.
Time Horizon:	2008-2009
Lead Partners:	Chamber of Commerce
Support Partners:	City of Lebanon; Lebanon County Commissioners; LVEDC; Community of Lebanon Association
Funding Sources:	N/A

Objective 1B: Foster a Job-Ready Workforce.

Action 1B1:	Support and promote the efforts of the Educational Data Systems, Inc.
Intended Outcome:	Greater use of the services offered and decreases in unemployment and underemployment in the county.
Time Horizon:	2008-2009
Lead Partners:	LVEDC; Chamber of Commerce; Lebanon County Commissioners; Local officials
Support Partners:	School Districts; HACC; Lebanon Valley College; WEDnetPA
Funding Sources:	Agency/Organizational budgets for staff outreach
Action 1B2:	Encourage local companies to become "CareerLinked" employers; i.e. to be listed on the CareerLink web site, particularly when they have jobs available.
Intended Outcome:	Increased labor pool for Lebanon County businesses. Greater visibility for Lebanon County businesses.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	South Central Workforce Investment Board; CareerLink
Support Partners:	HACC; Lebanon Valley College; LVEDC; Chamber of Commerce; WEDnetPA
Funding Sources:	Workforce Leadership Grant; Customized Job Training; Industrial Resource Centers; Opportunity Grant Program
Action 1B3:	Support expanded programs to provide English language skills to non-English speaking residents.
Intended Outcome:	Increased volume of workforce information in Spanish. Increased participation in the workforce by Hispanic population.
Time Horizon:	2008-2009 through 2012-2013
Lead Partners:	Careerlink; South Central Workforce Investment Board; Lancaster-Lebanon Intermediate Unit (IU13); Literacy Council
Support Partners:	CareerLink (TeamPA); School Districts; HACC; Lebanon Valley College; LVEDC; Chamber of Commerce; WEDnetPA
Funding Sources:	DCED; TeamPA Foundation; School Districts

Action 1B4: Continue to offer college classes for credit in the high schools.

Intended Outcome: Increased number of students enrolling in the classes and earning college credits. Retention of young people in local institutions of higher education.

Time Horizon: 2008-2009

Lead Partners: School Districts

Support Partners: HACC; Penn State; Lebanon Valley College; Chamber of Commerce

Funding Sources: Scholarship funds; School budgets

Action 1B5: Provide public transportation for students who need to travel to other regional HACC campuses for necessary instruction.

Intended Outcome: Increased enrollments in programs that have classes that are only offered at other HACC campuses.

Time Horizon: 2010-2011

Lead Partners: HACC

Support Partners: COLT

Funding Sources: HACC; PennDOT

Action 1B6: Assist local schools, colleges and training centers with appropriate workforce training programs, including entrepreneurial start-ups. Specifically, support the development of a HACC-sponsored business incubator in the City of Lebanon.

Intended Outcome: Additional opportunities for new business development, as well as the ability for fledgling companies to develop, test, and market new technologies.

Time Horizon: 2008-2009

Lead Partners: HACC – Lebanon Campus

Support Partners: City of Lebanon; Ben Franklin Technology Development Authority; Lebanon County; School Districts

Funding Sources: University Research Funding; Technology Development Grant; Section 108 Loan Guarantee

Objective 1C: Direct economic investment compatible with growth management goals for urban revitalization, suburban expansion, and rural resource production.

Action 1C1: Develop a city-wide Strategic Economic Development Plan for the City of Lebanon to supplement the 2004 Comprehensive Plan.

Intended Outcome: A coordinated set of actions that address the economic development of the entire city. This strategic plan should go beyond the borders of the Central Business District and focus on the needs of city residents and identify service gaps. These gaps would be opportunities for new business development and attraction. The plan should also highlight the importance of the city's economic health relative to the rest of the county.

Time Horizon: 2009-2010 through 2012-2013

Lead Partners: City of Lebanon

Support Partners: Lebanon County Planning Department; LVEDC

Funding Sources: LUPTAP (Land Use and Technical Assistance Program); Municipalities

Action 1C2: Promote and provide continued support for the Blueprint Communities initiative.

Intended Outcome: Improve the neighborhoods in the northwest section of the city and other neighborhoods throughout the county where appropriate.

Time Horizon: 2008-2009

Lead Partners: City of Lebanon; Blueprint Community Committee; other municipalities and community committees, based on interest and commitment

Support Partners: Lebanon County; Local Businesses; Chamber of Commerce; LVEDC; City residents

Funding Sources: Blueprint Communities program (Federal Home Loan Bank of Pittsburgh); Pennsylvania Housing Finance Authority; USDA Rural Development

Action 1C3: Support development of strategic plans for economic development in downtowns throughout the county.

Intended Outcome: Continued vitality of community centers.

Time Horizon: 2009-2010 through 2012-2013

Lead Partners: Municipalities, primarily boroughs and first class townships, or multi-municipal partnerships

Support Partners: Lebanon County Planning Department; LVEDC; Chamber of Commerce

Funding Sources: LUPTAP (Land Use and Technical Assistance Program); Municipalities; Foundations

Objective 1D: Improve coordination among all stakeholder agencies.

Action 1D1: Designate a member of the County Planning Department staff as economic development planning liaison.

Intended Outcome: Improved communication and networking among stakeholder agencies and progress in plan implementation. Establishment of part-time duties (25% of time) in economic development planning.
 Designation of duties:

- oversee the implementation of the Economic Development Plan.
- champion the plan among the various local organizations critical to its success, including business and economic development organizations (ideally as an ex-officio member), other county departments, and municipal governments and authorities.
- maintain communication with economic development planners in neighboring counties and appropriate regional organizations.
- provide an annual report to the commissioners on progress in implementing the plan, and on economic conditions in the county.
- monitor the need to update portions of the plan and alert the commissioners as necessary.

Time Horizon: 2008 and ongoing

Lead Partner: Lebanon County Planning Department

Funding Sources: Lebanon County Commissioners

Action 1D2: Continue to foster and encourage public/private partnerships to invest in the City of Lebanon and throughout the county by using available public funding to further leverage private investments.

Intended Outcome: Sustainable economic growth, which requires an emphasis on private, for profit business growth and job development.

Time Horizon: 2008-2009

Lead Partners: LVEDC

Support Partners: City of Lebanon; Lebanon County Planning Department; Chamber of Commerce; Community of Lebanon Association

Funding Sources: Business in Our Sites; Community Economic Development Loan; Keystone Opportunity Zones; Minority Business Development Authority; Opportunity Grant Program; Small Business First; Tax Increment Financing Guarantee Program

Action 1D3:	Strengthen cooperation and information sharing among “Lebanon County Ambassadors”, local representatives who guide visiting business executives in their investigation of Lebanon County sites, amenities, and quality of life.
Intended Outcome:	Comprehensive representation of Lebanon County assets to prospective businesses.
Time Horizon:	2010-2011
Lead Partners:	LVEDC
Support Partners:	Lebanon County Tourism Promotion Agency; Chamber of Commerce; The Smart Market; Lebanon County Planning Department (Economic Development Planning Coordinator)
Funding Sources:	LVEDC; Chamber of Commerce; Lebanon County Tourism Promotion Agency
<hr/>	
Objective 1E:	Coordinate land use planning and infrastructure investment for economic stability and smart growth.
Action 1E1:	Review and revise county subdivision and land development regulations to modernize and eliminate inappropriate obstacles to economic development, while also ensuring that the necessary environmental safeguards are in place.
Intended Outcome:	A coordinated and predictable set of development regulations for business owners and new prospects that meet the needs of 21 st century business operations, including in-home businesses, while providing adequate protection of land and water resources.
Time Horizon:	2010-2011 through 2012-2013
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipal Officials; PA DCED
Funding Sources:	PA DCED
Action 1E2:	Continue to improve consistency in local regulations and efficiency in review procedures for business and industry.
Intended Outcome:	Removal of barriers to economic development from municipal ordinances, such as ability to have a mix of uses, to expand existing businesses, and to work at home, as well as to provide a certain level of predictability for new business prospects.
Time Horizon:	2010-2011
Lead Partners:	Municipal officials and planning commissions
Support Partners:	Lebanon County Planning; PA DCED
Funding Sources:	PA DCED

Action 1E3:	Continue to monitor the transportation needs of leading and target industries to determine the needs for modal transportation improvements that will grow the local economy.
Intended Outcome:	Proactive programming of transportation improvements.
Time Horizon:	2008-2009
Lead Partners:	LEBCO MPO
Support Partners:	LVEDC; Lebanon County Tourism Promotion Agency; Municipal officials
Funding Sources:	LEBCO MPO Budget
Action 1E4:	Direct land- and transportation-intensive industries, e.g. trucking, warehousing, and distribution businesses, to sites with appropriate transportation system access and with few to no environmental constraints.
Intended Outcome:	Minimal additional infrastructure improvements to service industries and protection of sensitive natural resources.
Time Horizon:	2008-2009
Lead Partners:	Municipal officials/planning commissions; LVEDC
Support Partners:	Lebanon County Planning Department
Funding Sources:	N/A
Action 1E5:	Direct employment-intensive industries to designated growth areas. Revise existing municipal zoning codes to provide appropriate opportunities to expand business and industry development within designated growth areas.
Intended Outcome:	Reduced pressures for expanded transportation and other infrastructure improvements. Reduced transportation costs for workers.
Time Horizon:	2008-2009
Lead Partners:	Municipal officials/planning commissions; LVEDC
Support Partners:	Lebanon County Planning Department
Funding Sources:	N/A

Action 1E6:	Maintain the City/County Geographic Information Systems geodatabase with current economic and related data to support economic development initiatives and make available to LVEDC and other agencies upon request or via an annual update.
Intended Outcome:	Capacity for up-to-date reporting of select data that will provide economic development partners with accurate data for marketing available sites and measuring progress, including available local services within designated business and industry growth areas.
Time Horizon:	2010-2011
Lead Partners:	City/County GIS Department
Support Partners:	LVEDC; Chamber of Commerce; Municipal Officials and Service Providers
Funding Sources:	City/County GIS Department Budget

Implementation Partners in Economic Development and Business Support

A great number and variety of public and private non-profit entities are active in supporting Lebanon County's existing businesses and furthering its economic development efforts. Those active in Lebanon County are listed in Table 8-3 according to their roles and applicable geography. For more information about each, see the *Economy and Employment Profile* or visit their websites.

Table 8-3 Partners in Economic Development or Business Support

	<i>Municipal and County</i>	<i>Regional</i>	<i>State and Federal</i>
<i>Multi-purpose Economic Development and Business Assistance Organizations</i>			
Lebanon Valley Economic Development Corporation (LVEDC) (www.lvedc.org)	X		
Lebanon Valley Chamber of Commerce (www.lvchamber.org)	X		
Regional Economic Development District Initiatives of South Central Pennsylvania (REDDI) (www.reddionline.org)		X	
Ben Franklin Technology Partners (www.benfranklin.org)		X	X
Pennsylvania Department of Community and Economic Development (PA DCED) (www.newpa.com)	X	X	X
Pennsylvania Department of Agriculture (www.agriculture.state.pa.us)	X		X
Pennsylvania Department of Labor and Industry (www.dli.state.pa.us)			X

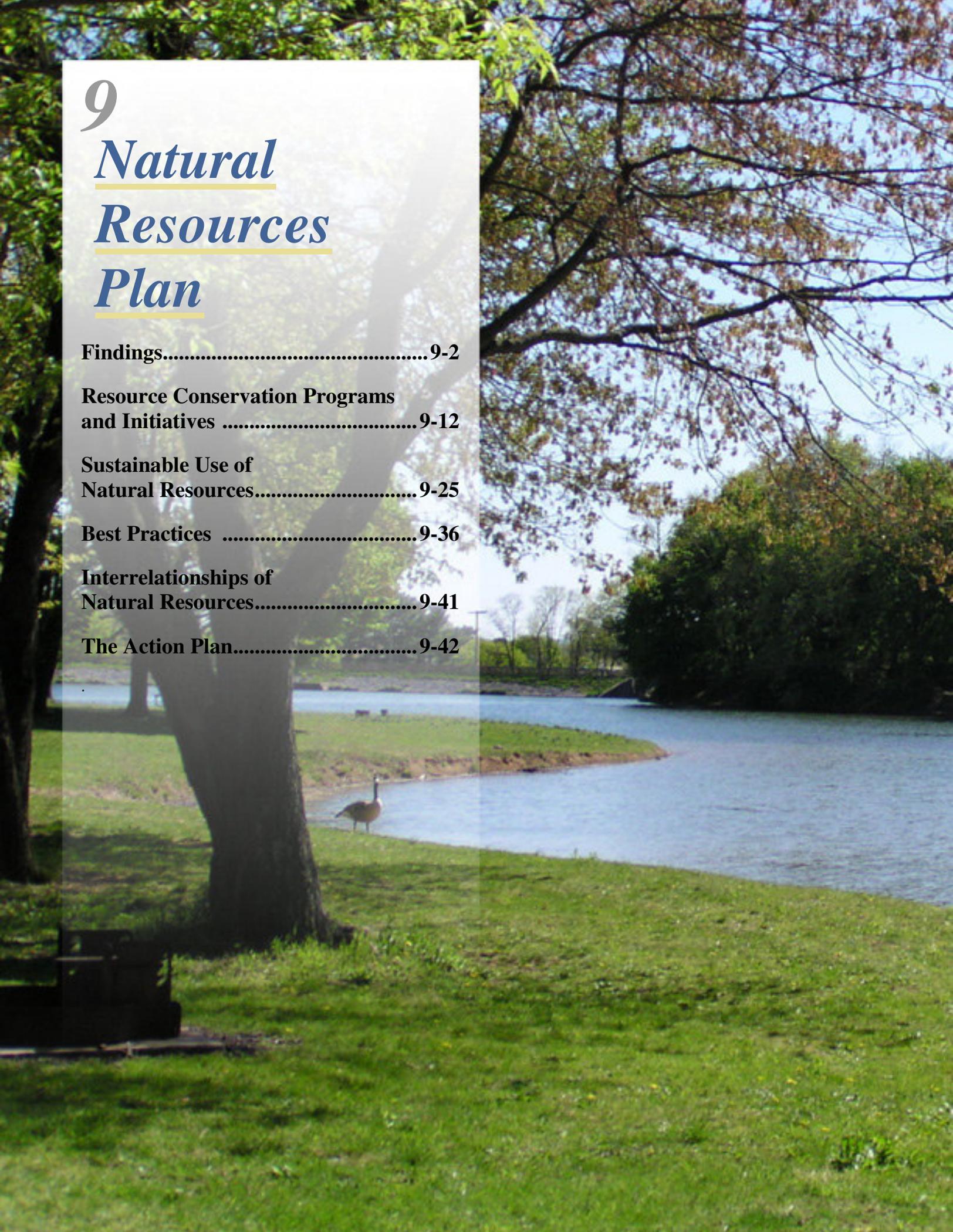
	<i>Municipal and County</i>	<i>Regional</i>	<i>State and Federal</i>
Organizations Specializing in Worker Training and Employment Services			
Pennsylvania Careerlink System (www.pacareerlink.state.pa.us)	X	X	X
Lebanon County Career and Technology Center (www.lcctc.k12.pa.us)	X		
Lebanon Adult Education Center (www.iu13.org)	X		
Harrisburg Area Community College (www.hacc.edu)	X	X	
South central Workforce Investment Board (WIB) and the South Central Employment Corporation (SEC) (www.pasec.org)		X	
The Manufacturers Association of South Central Pennsylvania (MASCOPA) (www.mascpa.org)		X	
Center for Workforce Information and Analysis (CWIA) (www.dli.state.pa.us)			X
Pennsylvania Department of Aging (www.aging.state.pa.us)			X
PA Dept of Education - ABLE (Adult Basic Literacy Education and affiliated programs) (www.pde.state.pa.us)			X
Pennsylvania Department of Public Welfare (www.dpw.state.pa.us)			X
Office of Vocational Rehabilitation (www.dli.state.pa.us)			X
Pennsylvania Higher Education Assistance Agency (www.pheaa.org)			X
Pennsylvania State Civil Service Commission (www.scsc.state.pa.us)			X
Organizations Specializing in Financing			
Innovation Partnership (www.innovationpartnership.net)		X	
Life Sciences Greenhouse of Central Pennsylvania (LSGPA) (www.lsgpa.com)	X		
Community First Fund (www.commfirstfund.org)		X	
PA Grows/The First Industries Fund (www.agriculture.state.pa.us/pagrows)			X
Penn Venture Partners, LP (www.pennventures.com)			X
Governor's Action Team (www.newpa.com)			X

	<i>Municipal and County</i>	<i>Regional</i>	<i>State and Federal</i>
<i>Organizations Specializing in Technical Assistance</i>			
Small Business Development Center at HACC, Lebanon Campus	X		
Lebanon County Conservation District (www.lccd.org)	X		
Penn State Cooperative Extension (lebanon.extension.psu.edu)	X		
The Small Business Development Center, Kutztown University of Pennsylvania		X	
MANTEC, the Manufacturers Technology Center		X	
PENNTAP, the Penn State Technical Assistance Program			X
<i>Organizations and Programs Promoting the Location or Local Products</i>			
Lebanon County Tourist Promotion Agency (www.visitlebanoncounty.com)	X		
SouthCentral Team PA/Smart Market		X	X
Pennsylvania Preferred™			X
Business in Our Sites (www.pewpa.com)			X
<i>Organizations Specializing in Community Planning (Land Use, Transportation, Infrastructure, etc.)</i>			
Lebanon County Planning Department	X		

9

Natural Resources Plan

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Land, water, minerals, vegetation and wildlife resources are dispersed throughout Lebanon County. The majority of lands in the county possess one or more natural attributes worthy of consideration in future community development and conservation planning. Each resource has a unique pattern to its distribution, and could be considered independently. Yet these resources interact with one another and their patterns overlap, creating the unique landscapes and ecology found within Lebanon County. As interrelated systems, they require more careful consideration of the impacts of resource use and management.



The purpose of this plan is to help local, regional, and state government officials and decision-makers, developers, and citizens make informed planning decisions regarding the protection of these resources. Sensitive environmental resources are inventoried in the *Natural Resources Profile* (Background Study #6). The profile also characterizes threats to resource existence and function and identifies protection techniques used by the county and its municipalities. Based on specific resource needs for further protection, this plan recommends preservation, protection, and/or management.

The major sections of the Natural Resources Plan: (1) summarize the significant natural resource features, threats, protection techniques, and recommendations from the profile and other resource investigations; (2) highlight the additional analysis needs for agriculture, forestry, water resources, and sensitive environmental features; (3) offer best practices for resource conservation and management; (4) convey the interrelationships of natural resources with other elements of the Comprehensive Plan; and (5) present an Action Plan that identifies a variety of actions for the county and its partners to undertake to balance environmental and economic values of Lebanon County.

MPC Requirement: *A plan for the protection of natural and historic resources to the extent the municipalities are not limited by other federal or state statutes, these resources include, wetlands, aquifer recharge zones, woodlands, steep slopes, prime agricultural land, flood plain, unique natural areas and historic sites.*

MPC Article III, Section 301(a)(6)

Overview Findings from the Natural Resources Profile and Other Resource Studies

In preparation for the development of this Natural Resources Plan, a detailed natural resources profile inventorying the natural resource features found within or having an influence on Lebanon County was prepared. The following are key findings from the profile. These findings characterize the vast array of resources, their condition, potential threats to the resources and resulting impacts.

Findings from the Profile

Significant Resource Assets

The natural landscape of south central Pennsylvania defines the character of Lebanon County. Its abundant water supplies, fertile valley, and forested mountains are assets that contribute to the community. They support the economy, create recreational opportunities, contribute to environmental quality, and provide an attractive place to live.

Climate

- Lebanon County enjoys a humid continental climate with average precipitation of 44 inches per year. Average temperatures range from 20 degrees Fahrenheit in winter to 90 degrees Fahrenheit in summer.

Topography

- Lebanon County contains a fertile valley bordered by east-west trending mountain ridges to the north and hills and ridges to the south.
- Over 9,200 acres, 4% of the county's slopes, are steep slopes (> 25 percent). These are primarily located along the ridges in the northernmost part of the county. Another 23,300 acres, 10% of the county's slopes, are precautionary steep slopes (15 to 25 percent). These are found in the southern hills and valley uplands.
- All but six municipalities with significant precautionary and steep slopes have municipal regulations managing the impact of development on these features; Bethel, Cold Spring, North Londonderry, North Annville, and South Annville Townships and Mt. Gretna Borough lack protection for these sensitive areas.
- Existing steep slope provisions include a restriction on the removal of total vegetative cover that relates to the percentage of the lot which may be developed; larger minimum lot sizes; and submission of an Erosion and Sedimentation Control Plan to the Lebanon County Conservation District on lots with slopes in excess of a certain percentage. These provisions can serve as models for those areas in Lebanon County without steep slope provisions.



Physiography and Geology

- The geology that underlies most of Lebanon County includes coal, limestone, dolomite, sandstone, shale, quartzite, and phyllite materials. Additionally, gneiss, granite, anthracite, metadiabase, metabasalt,

metarhyolite, and marble from the older formations are found in the extreme southeast region of the county.

- These formations have a direct impact on land suitability for development and mineral extraction. More than 2,000 acres of land are actively mined or quarried for non-industrial minerals and yield an average annual value of over \$5 million. Limestone accounts for approximately 98% of this extraction activity.
- The Lebanon Valley is largely comprised of limestone and dolomite carbonate rock formations totaling over 73,700 acres or 31% of the county.

Water Resources

- Water is needed for both consumptive and non-consumptive uses. Consumptive uses, such as crop irrigation, livestock watering, human water supply, as well as natural evaporation diminish the amount of source water by diversion or withdrawal and/or make water unavailable for other uses. Non-consumptive uses, such as recreational water bodies, fish hatcheries, and hydroelectric dams, can sustain the amount of source water by avoiding water diversions or through withdrawal and return.
- A water budget is the total amount of precipitation, stream flow, evapotranspiration and groundwater in a specified area, typically a watershed. The water budget categories water inflows (precipitation), water outflows (stream flow and evapotranspiration and consumptive uses) and water storage (groundwater). A drought results when outflows exceed inflows and storage.
- Two principal types of aquifers are located in Lebanon County. Sandstone and shale aquifers lie beneath the northern and southern ridges. The carbonate rock aquifers traverse the middle portion of the county in an east-west direction.
- The carbonate aquifer system is the primary source of groundwater supply and reliance on groundwater resources for water supply has grown. In Lebanon County, groundwater supplied 77% of the 29.55 million gallons of water used each day for public supply, domestic wells, commercial, agriculture (irrigation and livestock), industrial, mining, and wastewater treatment in 1990. By 2000, groundwater supplied 98% of the 49.01 million gallons used each day for public supply, agriculture, and industrial water use; however, water use from domestic wells and commercial users was not reported by counties in



Pennsylvania. Preliminary water use estimates for 2005 indicate that 86% of 8.57 million gallon water supply for public supply, domestic, commercial, agriculture, thermoelectric power (cooling) and industrial uses came from groundwater; however, mining, the largest water user at 31.5 million gallon in 2000, was not reported for 2005.¹ The availability and quality of groundwater will be important to the continued health and growth of the county.

- The Pennsylvania Department of Environmental Protection has classified eight Special Protection Waters in Lebanon County. The water quality of these two Exceptional Value (EV) and six High Quality (HQ) surface waters exceeds Pennsylvania's water quality criteria. EV waters comprise only 2% of Pennsylvania's water bodies and may be of exceptional ecological or recreational significance. The Evening Branch and Fishing Creek tributaries of Mill Creek and Segloch Run are the two EV waters in the county. Cocalico Creek, Furnace Creek, Hammer Creek, Shearers Creek, Stony Creek, and Monroe Creek from its source to tailwaters of Lake Strause are the HQ waters in the county.
- The Pennsylvania Department of Environmental Protection identified water quality and habitat impairments to 37 different streams in Lebanon County. Impairments are caused by abandoned mine drainage, agricultural management practices, and road and urban runoff.
- Twenty-two (22) municipalities in the county have floodplain regulations which meet or exceed those required by the National Flood Insurance Program (NFIP); three (3) have had special conversions (no defined floodplain) by FEMA. Cold Spring Township is the only municipality in the county which does not participate in the NFIP. In Lebanon County, the Planning Department has been instrumental in developing model regulations and assisting communities to adopt floodplain management regulations which meet NFIP guidelines. Municipalities in the county participating in the NFIP have also adopted the Lebanon County Floodproofing Building Code. This code institutes floodproofing measures, restricts substantial improvements to existing structures, and prohibits new development from occurring in flood prone areas. The success of Lebanon County's floodplain management program is evidenced in the fact that the county has not experienced significant flood damage as a result of recent flood events.



¹ Estimates of Water Use in the United States 1990 and 2000 county datasets, U.S. Geological Survey, www.usgs.gov.

- Of the eight designated watersheds in Lebanon County, only the Tulpehocken Creek and Cocalico Creek watersheds have approved Act 167 Stormwater Management Plans, as required by the Stormwater Management Act (Act 167).

Watersheds in Lebanon County

- Cocalico Creek
- Conewago Creek
- Little Chiques Creek
- Quittapahilla Creek
- Tulpehocken Creek
- Swatara Creek (including the Indiantown Run, Little Swatara Manada Creek, Mill Creek and Trout Run subwatersheds)
- Spring Creek
- Stony Creek
- Clark's Creek (not designated for Lebanon County)

Soils Suitability for Agriculture and Development

- Approximately 133,000 acres or 57% of the county's soils are classified as having the necessary qualities to sustain farming activities under modern farm management practices. The majority of these soils, found in 37% of the county, are considered to be prime farmland soils and are located in a contiguous band along and just south of the US 422 corridor; farmland soils of statewide importance comprise the balance of farmland soils, cover 20% of the county and are found predominantly in the valley uplands just north of the US 422 corridor.
- Land use data from March 2006 indicated that approximately 100,000 acres, 42.7% of the county, is actively farmed. This figure represents lands used for agricultural production activities; it does not include homesteads, woodlands, drives and lanes, and other lands used for non-agricultural activities, though they may occur on farm property. Other sources such as the 2005/2006 Pennsylvania Agricultural Statistics Bulletin suggest that lands used and associated with farms in the county may be as high as 130,000 acres; while methodologies for farmland classification often vary, this higher figure may also suggest that farmers are utilizing marginal soils in their agricultural operations.
- Undoubtedly, some quality farmland soils have been developed for intensive community uses. Based on an analysis of the locations of farmland soils and the developed portions of the county, this figure is estimated at 32,646 acres, leaving roughly 100,000 acres of farmland quality soils available to the farming industry.
- Farmland conservation in Lebanon County occurs in the form of Agricultural Security Areas (ASA) and farmland preservation in Agricultural Easements. Agricultural security areas constitute 57,204 acres or 24% of the county as of January 2007; an increase of over 3600 acres since completion of the *Natural Resources Profile* in 2006. ASAs have been established in all but one township, Union Township, where agriculture is a

significant land use. As of June 2006, 10,996 acres or 4.7% of the county has been preserved as farmland.

- All but three municipalities with significant agricultural soils have municipal regulations managing the impact of development on these soils. North Annville, North Londonderry, and Union Townships lack protection for this sensitive resource.
- The two techniques predominately used to manage land use in support of agriculture within the county are large lot zoning and residential density control zoning (sliding scale zoning).
- Over 61,200 acres or 26% of the county contain soils with hydric components or inclusions. Since hydric soils are one of the decisive indicators of wetlands, their locations suggest potential wetlands. Onsite investigation is recommended for site development planning to determine the actual field presence or absence of hydric soils, soils with inclusions, and/or wetlands. Precautions should be taken to avoid, or if necessary to mitigate, disturbance of wetlands.
- The National Wetlands Inventory has identified 1,082 acres of forested wetlands and 685 acres of nonforested or emergent wetlands in the county.



Woodlands

- Forests cover approximately 34% of Lebanon County. The vast majority of forest lands are deciduous, though coniferous, mixed deciduous-coniferous, and wooded wetlands can be found.
- The Blue Mountain-Kittatinny Ridge is a globally-significant fall migration flyway, containing high quality interior-forest habitat that spans the county's northern border.
- The Highlands are a chain of hills and ridges with large unbroken tracts of forest stands that stretch across Pennsylvania, New York, New Jersey and Connecticut and span the southern region of the county. The Highlands are home to over 100 plants and almost 50 animals listed on the federal and state endangered, threatened, or species of concern inventory lists.



- Large public woodland areas in Lebanon County include: Middle Creek Wildlife Management Area, Stoever’s Dam Park, and Clarence Schock Memorial Park at Governor Dick as well as Memorial Lake State Park, Swatara State Park and numerous state game land tracts.
- The only forest land preservation program being used in Lebanon County is the Forest Legacy Program (FLP), a federal and state partnership. The Lebanon County Conservancy is the designated local sponsor for applicants to the program. Only one landowner has applied to the program. Due to the nationwide competition for this very limited funding, the applicant was not approved. Parcels adjacent to preserved lands in the Highlands Region seem to have the best chance of receiving FLP funds.

Wildlife

- Lebanon County is home to 32 natural heritage sites of statewide importance. These sites support species of special concern, or have exemplary natural communities. The three most important sites in the county are the Fort Indiantown Gap Macrosite, the Indiantown Run Woods, and the Walnut Run Watershed (a subwatershed of Cocalico Creek), State Game Lands #156.
- There are 8 natural heritage sites of significance to local biological diversity in Lebanon County. The most important of these sites are Dogtown Wetlands, Lake Conewago, Swatara Creek at Route 78, Evening Branch Wetlands, and Swatara Floodplain and Union Canal.



Model Municipal Regulations for Natural Resource Preservation

- Cornwall Borough has by far the most extensive environmental regulations of the municipalities in Lebanon County. Article 20 of the zoning ordinance, as amended January 14, 2002, creates an Environmental Protection Overlay District (EP) to supplement the underlying district provisions with specific natural resources protection provisions.

Threats to Resource Presence or Quality

- Development places a great deal of pressure on the county’s open space. The deep and fertile soils of Lebanon Valley with better drainage and less rock material are ideal for agriculture; however, the flatter landscape is also less expensive to develop and therefore more susceptible to development pressures. In the Blue Mountain-Kittatinny Ridge and Highlands regions and other upland areas, stresses include fragmentation and loss of forest cover and habitat.
- Approximately 65%, or 150,736 acres of the county are considered “very limited” for the application of on-lot sewage disposal systems.

Mismanagement of on-lot sewage disposal systems can pose significant threats to groundwater quality from nitrates, bacteria, and wastewater chemicals dumped into septic systems.

- Groundwater is the primary source of water for municipal, domestic, industrial, recreational, and agricultural uses in Lebanon County. As groundwater withdrawals increase to meet growing demands, stakeholders need information on the location and quantity of water resources available, and how to best develop, conserve, and protect them. Removal of groundwater resources faster than the sustainable rate could lead to a growing water deficit, the gradual failure of water supplies, diminishing stream and spring flows, and degraded aquatic and riparian habitat.
- With respect to water supply, the Susquehanna River Basin Commission (SRBC) has identified two potentially stressed areas (PSA) in Lebanon County where existing or projected withdrawals and uses are anticipated to exceed long-term sustainability or cause prevalent conflicts among users: the Spring Creek Watershed and the Fredericksburg area. The Spring Creek Watershed is undergoing rapid commercial, institutional, recreational, industrial, and residential development and virtually 100 percent of the 1-in-10-year drought recharge is already being utilized. Future development and water demand could extend this area eastward along the carbonate valley. In the Fredericksburg area withdrawals by food processors and a public water supplier are concentrated at the downstream end of three small watersheds and utilize essentially all of the 1-in-10-year flow. The proposed development of groundwater resources in the upstream areas to support substantial planned residential development could adversely impact the existing major withdrawals. As the Commonwealth continues efforts for updating the State Water Plan through the Water Resources Planning Act (Act 220), the Spring Creek Watershed and Fredericksburg area may be designated as Critical Water Planning Areas where “existing or future demands exceed or threaten to exceed the safe yield of available water resources.” Lebanon County should be prepared to play a more active role in investigating water availability, current and future demands for water, and planning for supply-side and demand-side alternatives to assure an adequate supply of water.
- While not identified by SRBC as a PSA, the carbonate aquifer system of Lebanon Valley is an important source of groundwater to the communities and economy. Growth along this corridor is expected to continue and increased groundwater development is needed to meet the future water demand.

- The carbonate geology of Lebanon County lends itself to sinkholes and land subsidence. Sinkholes, subsidence, and closed topographic features have already developed along Route 422 in the Lebanon Valley. As groundwater withdrawals increase to support a growing population, the level of the water table will decline and the potential for subsidence will increase. Citizens and local officials need to understand how to reduce the risk of subsidence and sinkhole expansion and how to mitigate these conditions when they occur.
- 
- Stormwater infiltration has been successfully demonstrated in carbonate areas when storm water management facilities are located and designed to minimize risk of sinkhole formation. Avoiding concentrated flows and dispersing runoff for infiltration are the recommended procedures.
 - These changes to the natural landscape carry direct and indirect consequences for the water resources of the county. Removing the natural filter of the soil layer and vegetation exposes groundwater to contamination. Human activities including mismanagement of on-lot sewage disposal systems, leakage from underground tanks, and intensive land management in karst areas can further threaten groundwater quality. The increase in paved surface area and other impervious surfaces in combination with the application of fertilizers and pesticides increases the biological, chemical and particulate contaminants in surface waters, degrading water quality for aquatic habitat and increases treatment requirements for public water systems. Water shortages due to excessive consumption and drought can threaten supplies just as easily as inadequate recharge due to changes in land use and cover.
 - Stream impairments due to urban runoff and storm sewers were identified for 7 streams: Beach Run, Brandywine Creek, Cocalico Creek, Gingrich Run, Quittapahilla Creek, Spring Creek, and Tulpehocken Creek.
 - Industrial and municipal point sources caused impairments on Deep Run and Elizabeth Run.

Agricultural Management

- Agricultural sources accounted for nearly 80% or 29 of the impaired streams. Streams are most vulnerable to contamination from agricultural chemicals where poorly drained soils, agricultural practices, and topography

encourage the rapid movement of water off fields, or where tile drains and ditches quickly transport agricultural runoff from fields to streams. Nutrient management plans continue to be developed and implemented to remediate these kinds of impacts.

- Water samples with nitrate levels that exceed the United States Environmental Protection Agency (US EPA) Maximum Containment Level (MCL) standards for drinking water have been found in ground and surface waters associated with carbonate formations. Streams from agricultural areas underlain by limestone bedrock yield higher amounts of nitrate per unit area when compared to streams in areas with other land uses and bedrock types. Manure application rates may be the most important factor influencing nitrate concentrations in streams in agricultural watersheds underlain by limestone.
- According to the United States Geological Survey, it is unclear whether bacteriological contamination of well water is caused by inadequate protection of wells from surface runoff, septic system failure, the application of animal manure to fields, or other causes. The presence of bacteria in water from rural wells is one of the most important water quality issues related to human health for counties located in the Lower Susquehanna River Basin.
- The fish population has been impacted by agricultural activity in the agricultural settings, but the impact is related to habitat degradation rather than nutrients in the water.

Mineral Extraction

- Mineral extraction activities impact the quantity of groundwater as they pump water from the quarry pit to the surface to access deeper mineral seams. These activities are occurring in the valley along the major population corridor.
- Inactive, water-filled quarries provide a direct “pipeline” for pollutants to reach the groundwater.
- Drainage from active and inactive mines in northern Lebanon County caused impairments to the East Branch Rausch Creek, Rausch Creek, and Swatara Creek.



Air Quality

- Currently, six principal pollutants are monitored by regulatory, enforcement and research agencies, including the US Environmental Protection Agency (US EPA) and the Pennsylvania Department of Environmental Protection (DEP). Carbon monoxide, oxides of nitrogen, ground-level ozone, particulate matter and sulfur oxides are monitored for compliance with the Clean Air Act; lead is regulated separately.
- DEP monitors air quality in areas, called air sheds, having high population density, high levels of expected contaminants, or a combination of both factors. For transportation planning and air quality analyses, the Harrisburg and Lebanon urbanized areas share the same air basin or air shed. The Pennsylvania Air Quality Monitoring Annual Reports from 2005 to 2007 indicate improving trends for air quality as it relates to PM2.5; however, the 2005-2007 mean (three year average) for ozone is 81, which is above the new standard of 75 parts per billion.
- In addition, DEP has established additional standards for beryllium, fluorides, and hydrogen sulfide. It also monitors acid rain, mercury content in rain and ragweed pollen for their impacts on the environment and public health.
- In addition to the monitoring of air quality standards and the administration of operating permits for polluting businesses as performed by state and federal agencies, citizens' voluntary actions can help improve air quality in local communities.

Resource Conservation Programs and Initiatives

Federal and state agencies, county and municipal governments, watershed associations, and regional/interstate commissions are actively working in Lebanon County. They have performed studies, provided technical assistance, and organized educational initiatives to improve the public's understanding of natural resources. These agencies and their programs suggest potential resources, program models and partnerships for implementation of the county comprehensive plan.

Federal and Interstate Programs and Initiatives

The Highlands

The Highlands are the portion of the Appalachian Mountains from south central Pennsylvania through New Jersey and New York to northwestern Connecticut, forming a vital linkage between the Berkshires and the Blue Ridge Mountains. The region contains ridge after ridge of forested mountains, high quality water bodies, and native wildlife habitat. In addition, the upland region contains major water supply watersheds for nearly 25 million people along the East Coast. Although the Highlands have been recognized as a significant natural resource area by the US Forest Service and by the State of New Jersey, vital open spaces in the Highlands are increasingly being lost to suburban

development. Bold action is needed to protect the critical treasures of the Highlands; the environmental and economic value of this region is in jeopardy.

The Highlands Conservation Act of 2004, H.R. 1964, recognized the national significance of the water, forest, agricultural, wildlife, recreational, and cultural resources of the Highlands region. Its purpose was to assist the States of Connecticut, New Jersey, New York and Pennsylvania in conserving priority land and natural resources in the Highlands region. As an implementation element of the act, the USDA Forest Service completed an inventory and evaluation of natural resources in the Highlands region. Its next study phase will be an analysis of land use patterns and changes over time in comparison to changes in the region's water resources quality and quantity. Additional resource studies and future growth models on these resources are still needed to provide a common understanding of the issues and challenges, and to develop the most promising strategies to conserve resources in a region undergoing rapid and extensive land-use change.

The Highlands region contains 31 critical treasures in Pennsylvania. These critical treasures include the Furnace Hills of Lancaster and Lebanon Counties, which provide habitat for more than 280 species of birds and animals, as well as native plant species. This region is the source of high quality waters for both aquatic resources and water supply in southern Lebanon County, as well as the location of the iron heritage of the Cornwall area. Furthermore, regional residents have adapted the Horseshoe Trail, once a commerce and supply route, to recreational purposes.

About 13,000 acres are protected, including a number of acres held as State Game Lands. The most specific threat to the Furnace Hills is the expanding demand for home sites, driven by the area's proximity to the PA Turnpike and other major roads, plus large-lot zoning. Subdivisions are consuming substantial acreages of critical lands in this area, fragmenting important forest lands and wildlife habitat and negatively impacting recreational resources such as the Horse Shoe Trail. Middle Creek Wildlife Management Area is also included among the critical treasures but is noted as already protected.

The Highlands Coalition, established in 1988, seeks to protect and enhance the sustainability of natural and human communities in the Highlands region of Pennsylvania, New Jersey, New York, and Connecticut. At a regional level, the Coalition works to secure federal and state funding for land protection in the Highlands and to foster more regional approaches to planning for and managing growth. At the local level,



the Coalition contributes to efforts to fend off inappropriate development projects that threaten important Highlands resources and work with planning boards and community groups to understand the values of the Highlands and incorporate them into their decision making. The Coalition is comprised of more than 150 local, state, regional and national conservation organizations.

Lebanon County has already made commitments to the conservation of the Highlands in the county. In January 2007, the Lebanon County Board of Commissioners signed a resolution in support of the “implementation of the spirit and intent of the Highlands Conservation Act and the protection of the Highlands region in Pennsylvania as an area rich in natural resources, which are important to the environmental quality and economic prosperity within the Commonwealth and our County.” The Lebanon County Conservation District and Lebanon Valley Conservancy have joined the Highlands Coalition as members. More information on the Highlands, the Coalition and the status of priorities can be found at www.highlandscoalition.org.

The Susquehanna River Basin Commission

The Susquehanna River Basin Commission strives to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin. The Susquehanna River Basin Commission’s Annual Water Resources Program identifies resource management objectives for the entire river basin:

- Reduce Flood Damages & Provide Effective Disaster Recovery
- Improve Water Quality
- Mitigate Drought Impacts
- Ensure Adequate Water Supply
- Promote Economic Development
- Protect and/or Restore Aquatic Ecosystems
- Restore Migratory Fish
- Manage Sediment
- Preserve Cultural & Historical Heritage
- Enhance Recreation
- Facilitate Data Management & Use

SRBC’s coordination of planning and management studies has included development of the following publications and reports that have included information from and/or about Lebanon County:

- A Groundwater Management Plan for the Susquehanna River Basin
- The Lower Susquehanna Comprehensive Water Resources Study
- Swatara Watershed Water Supply Study

- Overview for the Development of Local Water Budgets
- Comprehensive Plan for Management and Development of the Water Resources of the Susquehanna River Basin

These publications and reports represent significant investment on the part of SRBC to develop water resource data that can inform local decision-making. They are available online at www.srbc.net.

The Chesapeake Bay Foundation

The Chesapeake Bay Foundation is the largest conservation organization dedicated solely to the Chesapeake Bay watershed. The Foundation's commitment is to work toward reducing pollution, improving fisheries, and protecting and restoring natural resources such as wetlands, forests, and underwater grasses. The Foundation offers restoration programs and environmental education programs to citizens of the watershed.

The Groundwater Foundation/Groundwater Guardian

The Groundwater Foundation works to make groundwater science accessible and understandable to citizens everywhere, so that they can be involved in protecting the environmental and economic vitality of their communities. The Foundation established the Groundwater Guardian program to support, recognize, and connect communities taking proactive, voluntary steps to protect groundwater. Lebanon County uses the Groundwater Guardian program to educate farmers, landowners, watershed groups, municipalities, water suppliers, and the public about non-point source pollution, best management practices and groundwater protection. Local priorities include:



- Continuing to facilitate the installation of best management practices on dairy and livestock farms in county watersheds.
- Serving as a liaison to various local watershed protection organizations, coordinating efforts for watershed education and outreach.
- Implementing public education and outreach efforts, combined with storm drain marking, as best practices to comply with State Separate Storm Sewer System (MS-4) requirements.

FEMA Map Modernization

The Federal Emergency Management Agency (FEMA) has undertaken the Flood Map Modernization project, a multiyear Presidential initiative supported by Congress that is directed at improving and updating the Nation's flood hazard identification maps. These flood maps have been produced and used for 35 years under the National Flood Insurance Program (NFIP), originally for the identification and delineation of flood hazard areas in communities and for setting flood insurance rates. However, they have come to be used for many purposes, including local planning, emergency preparedness and response, and natural resource management. Funding for the Map Modernization was first appropriated in fiscal year (FY) 2003, with additional funding provided in FY2004, FY2005, and FY2006.



The Map Modernization is responding to National Flood Insurance Program (NFIP) requirements and feedback provided by Federal, State, and local Program stakeholders on the need to update and improve the existing maps. FEMA has undertaken the Map Modernization project to:

1. Reflect recent development and/or natural changes in the environment,
2. Take advantage of revised data and improved technologies for identifying flood hazards,
3. Support a flood insurance program that is more closely aligned with actual risk, encourage wise floodplain management, and increase the public's flood hazard awareness,
4. Provide more timely updates of floodplain maps and easier access to the data, and
5. Help communities to be better prepared for flood disasters.

The Map Modernization process, like the existing FEMA process, will provide municipalities with the opportunity to review the draft FEMA maps. This review should carefully compare current municipal floodplain designations with the new FEMA data. Once the FEMA maps are finalized, municipalities should then decide whether to incorporate the new FEMA data into their local plans and regulations or to update their plans and regulations with reputable local floodplain delineation data, including accurate source listing.

State Programs and Initiatives

PA State Water Plan

The 2002 Pennsylvania Water Resource Planning Act calls for the Pennsylvania State Water Plan to be completed by March 2008, and updated every 5 years thereafter to maintain a working knowledge of how much water is available and how much water is needed by region. During the updating of the State Water Plan, areas will be identified

where the demand for water exceeds, or is projected to exceed, available supplies. These areas would be designated as Critical Water Planning Areas, and Critical Area Resource Plans will be developed to include a water availability evaluation, an assessment of water quality and water quantity issues, and an identification of existing and potential adverse impacts on water resources uses.



TMDL Program

PA DEP is responsible for the Total Maximum Daily Loads (TMDL) Program. The program was established as a means to improve water quality through the Federal Clean Water Act. The purpose of the TMDL Program is to identify sources of pollution and develop threshold plans to outline tolerable levels of pollutants in streams where water quality goals have not been achieved. This planning process involves stream or watershed assessments, determination of impaired water bodies, development of TMDL thresholds and remediation plans, implementation of remediation activities and reassessment of streams/watersheds.

PADEP has developed TMDL plans for the following nine streams in the county: Conewago Creek Watershed, Crosskill Creek, Deep Run Watershed, Deep Run/Beach Run, and Elizabeth Run, Earlackill Run, Owl Creek, Quittapahilla Creek Watershed, and Unnamed Tributary of Swatara Creek. The Conewago Creek Watershed is the only TMDL that has begun developing a TMDL implementation plan. Implementation of the other threshold plans is needed. TMDL threshold plans are needed for the following streams: Cocalico Creek Watershed, Hammer Creek and Middle Creek.

Stormwater Management Program

The Department of Environmental Protection's Stormwater Management Program provides grant moneys to counties to develop stormwater management plans for designated watersheds. This planning effort, as required by the Storm Water Management Act of 1978, results in sound engineering standards and criteria being incorporated into local codes and ordinances in order to manage stormwater runoff from new development in a coordinated, watershed-wide approach. The program also provides for research into new stormwater issues and computational techniques of watershed hydrology and water quality.



It provides technical assistance to individuals and municipalities in solving drainage problems through investigations and using the Pennsylvania Infrastructure Investment Authority (PENNVEST) as technical consultants

in a program to provide low interest loans to municipal governments who wish to construct projects to solve stormwater runoff problems. The program is also involved in various water quality initiatives working directly with the Chesapeake Bay Program, the Department's Nutrient Management Program and the Coastal Zone Program in research and advisory roles.

Each county is required to develop stormwater plans for each of the watersheds within its boundary. Since 1985 DEP has provided grants to counties to subsidize up to 75% of the cost of preparing plans. Municipalities are also provided similar grants for plan implementation. The regulations specify that stormwater management plans be undertaken in two phases; Phase I, the preparation of a scope of study (level of effort, personnel details undertaking the effort, time frame, and cost estimates for Phase II) and Phase II, the actual plan preparation.

PA DEP has designated 8 watersheds in Lebanon County, of which only two have approved Act 167 stormwater management plans. The Lebanon County Planning Department and local municipalities have implemented the existing plans by amending their subdivision and land development ordinances to: (1) adopt required criteria for the Tulpehocken and Cocalico Creek watersheds; and (2) extend water quality standards, infiltration requirements, best management practices, and other PA DEP stormwater management guidelines to the remainder of the county under the jurisdiction of the county ordinance. Lebanon County should continue to develop or support development and implementation of watershed specific stormwater management plans. A prioritized list of needed stormwater management plans is listed in the Action Plan.

Wellhead Protection Program

The Safe Drinking Water Act requires each state to develop and implement a Wellhead Protection Program (WHPP) that describes how the state will protect ground-water sources used by public water systems from contamination. In Pennsylvania, the WHPP is designed to provide for the protection of groundwater resources that serve as a source of drinking water for community water systems. Through the program, wellhead protection areas are delineated, potential sources of contamination are identified, and communities are encouraged to adopt land use zoning and other ordinances to ensure the protection of their water supply. Wellhead protection promotes sound land-use planning and complements the principles of pollution prevention.

A comprehensive local WHPP consists of five steps:

1. Form a community steering committee to represent all community interests in the wellhead protection plan.
2. Define the land area to be protected – generally zone I represents a protective zone immediately surrounding a water supply source ranging from a radius of 100 to 400 feet; zone II, a radius of 1/2 mile, which is the area determined to overlay that portion of the aquifer through which water is diverted to a well; and zone III, an area which contributes surface water or groundwater to zone II.
3. Identify and locate contaminants and sources that have the potential to adversely impact the drinking water supply of each wellhead protection area.

4. Manage the wellhead protection area (WHPA) through regulatory and non-regulatory tools to ensure that land use activities do not pose a threat to groundwater.
5. Plan for future wellhead needs and the long-term protection of these sites.

Pennsylvania Water Resources Education Network

The Pennsylvania Water Resources Education Network (WREN) works for the protection and management of Pennsylvania's surface and groundwater resources through education and informed policy making. Within Lebanon County, WREN has helped organize programs on wellhead protection and drinking water protection and non-point source pollution prevention.

Capital Region Water Board

The Capital Region Water Board improves public water management in the Capital Region of Pennsylvania by facilitating regional cooperation. The Board has taken a particular interest in addressing the lagging viability of small systems in south central Pennsylvania by searching for regional solutions. After its initial investigation, the Board found that extensive inter-basin transfers and diversions make it difficult to analyze the feasibility of even small regional systems. The Board may re-scope its effort to encompass larger regions. The board also completed a water supply study of the Swatara Creek watershed in 2003; the study makes sound alternatives for securing adequate water supplies, particularly during drought periods.

Forest Stewardship Program

Pennsylvania's Forest Stewardship Program, described as "our link to the past – our legacy for the future", is a voluntary program to help forestland owners learn how to improve and maintain the ecological health of their land. Funded by the U.S. Department of Agriculture Forest Service, the Pennsylvania Department of Conservation and Natural Resources Bureau of Forestry administers the program and provides technical assistance. The program links forestland owners to a partnership of private landowners, professional resource managers, and representatives from conservancies, higher education, industry, and government. This partnership can guide the forestland owner to decide what to do, provide help to do it correctly, and instruction in how to become a Forest Steward.



The Forest Stewardship Program is open to private landowners with more than five acres of forestland. However, nonforested open lands qualify if the landowner intends to manage them for water quality, wildlife habitat, or timber production. The goal of the program is to help the forestland owner realize and reap the many benefits of being a Pennsylvania Forest Steward—enriching the life of their land while enriching the lives of those who depend on forests.

To become a Forest Steward, the forestland owner develops a plan for the future forestland management with the assistance from a DCNR Bureau of Forestry Service forester and one Forest Stewardship professional. They help the landowner evaluate existing resources and learn how to manage the forest for wildlife, recreation, aesthetics, timber production, or whatever objectives the landowner wants to accomplish. The landowner decides what activities to incorporate into the Forest Stewardship Plan. Nine landowners in Lebanon County have become Forest Stewards for 1,949 acres of forestland.²

Sustainable Forestry Initiative

In 1995, the American Forest and Paper Association created the Sustainable Forestry Initiative, a voluntary, industry-driven effort developed to ensure abundant, healthy, and productive resources in the future. After more than 10 years of advocacy in partnership with broader conservation and environmental organizations, this industry partnership established an independent forest certification organization, Sustainable Forestry Initiative, Inc., to oversee the sustainable forestry initiative program.

The Pennsylvania Sustainable Forestry Initiative (PASFI) works to ensure the progress of the national initiative here in Pennsylvania. Through the PASFI program, landowners receive the information they need to enhance their ability to make good forest management decisions. Loggers learn safer, more productive skills and proper environmental practices. The forest industry as a whole becomes better understood by the public and enjoys continued accessibility to the timber resource -- and everyone benefits from the perpetuation of a healthy forest and the wealth of life enriching products derived from it.

Participants of the PASFI training program benefit from a program designed to foster understanding of the SFI program principles, Best Management Practices (BMPs), regeneration and resource conservation, safety and OSHA issues, transportation, and business management. A Master Logger status is a voluntary program that recognizes loggers who demonstrate excellence.

Blue Mountain-Kittatinny Ridge Conservation Project

Similar to the Highlands initiative, the Blue Mountain-Kittatinny Ridge Conservation Project is a collaborative effort of local, regional, and state organizations and agencies to focus public attention on the importance of the 185-mile long forested ridge through Pennsylvania; and to promote conservation activities to protect the ridge from further habitat loss, fragmentation, and inappropriate land use. Also like the Highlands, the Kittatinny Coalition is a voluntary member-based support and advocacy organization leading the promotion of conservation efforts.

After an initial characterization of resources, threats, and opportunities for conservation, the Conservation Plan for Kittatinny Ridge Conservation Corridor, prepared by the Audubon Pennsylvania, reached four major conclusions:

1. The corridor is a major migratory flyway. The Kittatinny Ridge is recognized as a “globally significant” migration flyway for tens of thousands of raptors,

² Per communication with PA DCNR, Bureau of Forestry, Rural and Community Forestry Section, August 20, 2007.

and millions of songbirds (orioles, tanagers, warblers, etc.) who use the ridge's forests as stopover habitat during their spring and fall migration through Pennsylvania. Migrant birds pack into the Kittatinny at much higher densities than other places in both spring and fall because it is the last ridge for southbound migrants, and the first ridge for northbound migrants. Migratory species include significant populations of endangered or threatened species such as Bald Eagles (PA endangered and federally threatened)³, Peregrine Falcons (PA endangered) and Ospreys (PA threatened). Significant populations of PA Species of Special Concern include the Northern Goshawk (PA Candidate-Rare), the Northern Harrier (PA Candidate-At Risk) and the Northern Saw-whet Owl (Condition Undetermined).

2. The corridor supports abundant terrestrial wildlife. The forested mountain habitat supports numerous species of special concern, including the Pennsylvania threatened Allegheny woodrat and Eastern small-footed myotis (bat). Black bear, bobcat, wild turkey, and ruffed grouse are found in healthy numbers. The many streams that flow off the ridge to the north and south are home to more than 34 species of freshwater fish.
3. The corridor influences water resources. Public water system withdrawals within one mile of the ridge serve 57,097 residents in Lebanon County. Few residents and elected officials understand the relationship between their public water and the forested mountain corridor.
4. The corridor is significantly impacted by development. New residential housing is currently having the biggest impact in the Kittatinny Ridge municipalities around the greater Harrisburg area. New development of any type on or adjacent to the Kittatinny Ridge increases demand on the limited water supply. Removal of the forest cover further compounds the problem by reducing infiltration rates and decreasing the recharge of groundwater.

The Conservation Plan makes recommendations in four categories. Those most relevant to Lebanon County are listed below.

In the area of Science

1. Pursue municipal or county designations of the ridge as locally important for birds, migration, groundwater recharge, and other ecological factors.

In the areas of Land Planning, Management and Conservation...

2. Identify parcels to connect and extend public land holdings along high ecological value corridors and using conservation easement programs to expand the protected habitat range.
3. Identify public water authority watersheds and work for their permanent protection. One example is the Lebanon Water Authority's Seigrist Reservoir in Schuylkill County.

³ On June 28, 2007, the Bald Eagle was removed from the list of federally threatened species.

4. Partner with the agricultural community to help protect valley farmland adjacent to the forested slopes. Agricultural land at the base of the ridge is an important groundwater recharge area and provides a buffer to the forests.
5. Identify historic features along the Kittatinny Conservation Corridor.
6. Partner with intersecting greenway groups for municipality and landowner work.

In the area of Public Policy...

7. Promote Environmental Advisory Councils and build interest in local natural resource protection policies and practices.
8. Develop and implement a local government assistance program for the ridge to help municipalities build the infrastructure of policies and programs needed to achieve a basic level of protection for the entire ridge.
9. Where development is unavoidable, encourage municipalities to require developers to use open space protection planning tools such as the Natural Lands Trust's "Conservation by Design" model.
10. Develop a list of elements to include in ordinances for forest slope protection.

In the areas of Education and Outreach...

11. Develop materials and strategies to increase public awareness of ridge values and threats.
12. Develop landowner habitat enhancement & protection initiatives to help private landowners with stewardship and conservation options.
13. Work closely with DCNR's Forest Stewardship program and district foresters to consider Kittatinny conservation strategies and activities in landowner forest management plans.⁴



Based on these corridor-wide recommendations, Lebanon County should continue support of the Kittatinny Coalition through efforts that focus attention on the importance of this forested ridge through the county and to promote conservation activities. Large tracts of mature upland forests should be identified and brought under forest stewardship plans. Where possible, linkage of these forest tracts should be sustained or re-established to mitigate forest fragmentation. Landowners can learn more about managing their lands for a healthy forest and wildlife habitat through the Bureau of Forestry, which has training programs on Forest Stewardship. The Kittatinny Coalition offers a variety of tools and programs to help municipalities and landowners preserve the unique natural corridor.

⁴ <http://pa.audubon.org/PDFs/KittatinnyConservationPlan-Apr2007.pdf>

County and Municipal Programs

Many of the municipalities in Lebanon County have taken actions to conserve and protect important natural resources. The methods used to address steep slopes, floodplains, biodiversity and agricultural soils vary in type and intensity.

Steep Slopes

Several of the municipalities in Lebanon County have incorporated steep slope protection provisions into their zoning ordinances. These provisions can serve as models for Cold Spring, Bethel, North Londonderry, North Annville, and South Annville Townships and Mt. Gretna Borough where steep slope protection provisions are lacking.

Ten Aspects of Steep Slope Regulation

The following ten aspects of community development and environmental protection should be considered when developing regulations to manage development on steep slopes.

1. Topography – provisions should define steep and precautionary slope by a specific percent grade.
2. Slope Stability – provisions should specify standards for slope stability prior to development and the grading necessary for stable slopes post-development.
3. Drainage and Erosion – provisions should identify all highly erodible soils, major watersheds and drainage courses, and potential impacts from increased runoff and sedimentation on water quality and require proposed plans to minimize erosion and runoff.
4. Infrastructure – provisions should assess the long-term feasibility of septic systems on steep slopes and potential risk to ground and surface water supplies in the event of system failure. Provisions may require a system inspection/maintenance program.
5. Access – provisions should evaluate the potential for accidents and ease or difficulty of emergency vehicle access and specify maximum grades for driveways and roads.
6. Aesthetics – provisions should document the rationale for protection of viewsheds, referencing the extent and quality of views to the hills, peaks or hillsides of special symbolic value to the community; survey community values, as documented by scenic resource studies; and evaluate the impacts that development would have at different distances.
7. Natural Qualities – provisions should identify and map vegetation communities and wildlife habitats and threats to these resources, giving special attention to rare and endangered plant and animal species, as well as species that have adapted to available habitats.
8. Fire Hazard – provisions should evaluate the frequency and causes of hillside wildfires and fire department response time and access requirements, and identify fuel reduction methods and architectural and landscaping factors in fire safety.
9. Recreational Values – provisions should consider area-wide needs and opportunities for hiking, hunting, climbing, and wildlife observation, which may be suitable to sloped sites.

10. Open Space – provisions should evaluate open space management methods such as creating greenways, wildlife habitat preservation areas, and conservation areas; these may be used as a means of redirecting potential development.⁵

Floodplains

Twenty-two (22) municipalities in the county have floodplain regulations which meet or exceed those required by the National Flood Insurance Program (NFIP). However, in those municipalities where only approximated studies have been done, only one floodplain district has been designated (General Floodplain District-GFP). GFP regulations are stringent since the location of the floodway has not been defined within this district. Detailed floodplain studies in these municipalities would help in the designation of different floodplain districts, identifying the most sensitive floodplain areas and allowing more flexibility in the requirements relating to building and development in less sensitive areas.

Biodiversity

Lebanon County's natural resources play an important role in the overall environmental quality in the county. Collectively, they compose ecosystems that maintain clean air, enrich the soil, purify the water, protect against stormwater damage and regulate climate.



The 2003 Natural Area Inventory identified 32 sites of statewide significance, suggesting a variety of exemplary natural communities or areas supporting species of special concern, and 8 sites of local significance. The inventory provides a tool to depict areas where the need of land management activities coincide with important natural resource features. Landowners are encouraged to incorporate the recommendations in site-specific management plans, such as forest stewardship and farm management plans.

Agricultural Soils

Like much of south central Pennsylvania, Lebanon County is blessed with large contiguous areas of prime agricultural lands and productive farming communities in the Great Valley between the Kittatinny Ridge and the Highlands. Due to the physical ease of construction, these areas are often the most vulnerable to development pressures. Consequently, municipalities that wish to preserve their agricultural lands and farming communities should incorporate agricultural preservation provisions into zoning ordinances. Large lot zoning and residential density control zoning (sliding scale zoning) are predominately used within the county to permit agricultural uses as well as non-

⁵ Olshansky, Robert. Planning for Hillside Development: Planning Advisory Service Report No. 466, American Planning Association, Chicago, 1996.

agricultural uses by right. While these techniques generally exclude commercial and industrial activities, they do not preserve farmland from development.

Local Watershed Programs

The Swatara Creek Watershed Plan presents management options to address opportunities and issues relating to water quality, population growth, land use, Swatara State Park, and the Swatara Greenway. At the local level, the Swatara Creek Watershed Plan encourages the comprehensive planning process at the local and county level to set proper goals for resource conservation and utilize environmentally conscious land use controls along the Swatara and its tributaries, especially with respect to floodplain management. The Swatara Creek Watershed Plan promotes effective sewer management through Act 537 planning, transportation and population impact studies, and forming partnerships with local school districts and universities for stream rehabilitation and education.

The Quittapahilla Creek Watershed Assessment identified restoration and management strategies to address problematic or declining stream conditions. Water quality improvements will be a significant challenge within the development corridor along the Quittapahilla. The Quittapahilla Creek Watershed study also projected future nutrient and sediment loading problems and recommended appropriate mitigation strategies.

Using the assessment and restoration plans for guidance, the Tri-County Conewago Creek Association seeks to continue to work with landowners throughout the watershed to make stream improvements on their property by stabilizing eroded stream banks, fencing and planting trees along the creek, and conducting educational and public outreach initiatives.

Sustainable Use of Natural Resources

Sustaining the Agricultural Industry

Agriculture is Lebanon County's number one industry and is particularly suited to the county due to its climate, soils, adequate rainfall, ideal geographic location in relation to national population centers and dedicated farm families. Lancaster, Chester, and Berks Counties are among top national producers; however, Lebanon is not far behind in its contribution to the 55% of Pennsylvania agricultural production that is found south and east of the Appalachian Trail.



The Lebanon County Conservation District estimated that Lebanon County had 1,105 farms on 124,500 acres of farmland (53.6% of total land area of county) in 2005. This figure differs from the farmland estimate of 99,996 acres (42.7%) tabulated in the Land Use Profile, Background Study #9, as a result of different methodologies for farmland classification.

Of this total acreage, 80,200 acres was in crops – corn, hay, soybeans, vegetables, fruit, etc. generating over \$41.4 million in revenue. The remaining land was in livestock production, generating \$199.8 million in sales. These figures rank Lebanon County among the top 10 counties in Pennsylvania for swine, milk, egg, barley, broilers, cattle and calves, corn for silage, corn for grain, and soybeans.

Beyond its contribution of the economy, other benefits of agriculture include providing water recharge areas, rural character, scenic views, wildlife and vegetation corridors, and low cost for community services. Sustaining the industry requires attention to all three components of the agricultural industry: the farmer, agribusinesses, such as suppliers, processors, and distributors, and the land. Pennsylvania has enabled the protection of farmers and farmland through legislation that protects farmers from nuisance complaints, reduces the tax burden on farmers, and funds land preservation programs at the county level.

Programs for the Protection of the Farmer

1. **Clean and Green** – Act 31 of 1974. The PA Farmland and Forest Land Assessment Act assesses land for its use value not its fair market value, providing relief from property taxes on land only (not buildings). It is generally administered by the county assessment office. There are three categories: farm, forest reserve, and agricultural reserve (also known as open space if open to the public). The act provides a permanent covenant as long as the agricultural use exists. If agricultural uses are discontinued, roll back taxes must be paid. In most counties, back taxes are revenue for the agricultural easement program. Some subdivision is permitted. Lebanon County does not participate in the Clean and Green program because current assessment values, dating to 1968, for fair market value are lower than the farm value today. Reassessment and establishment of the program has been projected to cost farmers more in property taxes, though the conservation district does receive inquiries about the program.
2. **Agricultural Security Areas (ASA) program** – Act 43 of 1981. This program protects farmers from ordinances restricting normal farming structures and practices; provides protection from condemnation; and serves as a prerequisite for agricultural preservation. It is a voluntary program administered by the local municipality. In Lebanon County, roughly 57,787 acres were enrolled in the ASA program by 747 landowners as of November 2007; participation across municipal lines is permitted and encouraged. The enrollment is short-term – only seven years, then participation must be renewed. Land can be removed from the ASA program before the end of the seven years.
3. **Right to Farm Act** – Act 133 of 1982, provides protection from nuisance action against farmers following accepted farming practices. The act acknowledges that “when nonagricultural land uses extend into agricultural areas, agricultural operations often become the subject of nuisance suits and ordinances. As a result, agricultural operations are sometimes forced to cease operations. Many others are discouraged from making investments in farm

improvements.” Similar provisions specifically protecting the right to practice forestry were enacted as part of the Pennsylvania Municipalities Planning Code in 1992.

4. **Agriculture Communities and Rural Environments (ACRE) Legislation**
- Act 38 of 2005, the ACRE legislation, provides further technical assistance from the Department of Agriculture in evaluating restrictive ordinances. ACRE is intended to help resolve some of the interface issues that occur when the non-farm community meets production agriculture. It includes provisions for: administrative review of disputed agricultural ordinances; enhanced environmental compliance; requires odor management Best Management Practices on new/expanding concentrated animal feeding operations (CAFOs) and concentrated animal operations (CAOs); addresses federal air quality mandates; closes the manure export loophole; ensures minimum setbacks/buffers; improves agriculturally-impaired streams; and monitors the use/impact of antibiotics. This recent legislation has also been applied to the protection of silvicultural (forestry) operations.

Programs for the Preservation of Farmland

1. **Agricultural Conservation Easements** - 1988 amendment to Act 43 of 1981. The purchase of conservation easements permanently preserves farmland by purchasing development rights. The program allocates state funds for leveraging with county funds. Minimum requirements for easements include:
 - Enrollment in the ASA program
 - Minimum of 50 acres, unless adjacent to eased farmland
 - At least 50% cropland or pasture
 - At least 50% of soils in capacity classes in I-IV (system of classification)

Additional provisions of Lebanon County’s Agricultural Land Preservation Program state that an eligible farm tract:

- Must have a conservation plan meeting Resource Management System (RMS) standards and approved by the Lebanon County Conservation District including an "Act 6 level" of nutrient management plan review by the Conservation District by the time of closing.
- Must be compatible with municipal land development plans.
- Must be willing to accept a cap of \$2500 per acre.



- Must not have more than 50% of its acreage enrolled in a reserve program such as CRP.

Lebanon County's preserved farmland totals 12,597 acres on 120 farms as of November 2007. The program previously paid a maximum of \$1500/acre. An increase to a maximum of \$2500/acre was approved in 2006.

The Lebanon County Agricultural Land Preservation Board and Conservation District have established a goal of 98,000 acres of preserved farmland through easements. The Land Use Policy Map designates a similar 98,109 acres for agriculture. This acreage reflects lands planned for agriculture and agribusiness through effective agricultural zoning and farmland preservation easements; not all farmland will necessarily be preserved through easements.

While Lebanon County's agricultural land preservation program is effectively making progress, it is not keeping up with development's conversion of farmland. Land zoned for agriculture totaled 114,921 acres in 2006. While most municipal regulations limited the number of lots able to be subdivided, the regulations could do more to support agribusiness and more aggressively direct development to other locations. Until stronger regulations are in place, development will continue to consume at least some portion of farmland. In addition, the county's criteria for agricultural preservation should strive to create larger contiguous preserved areas, if agriculture is to be sustained as a significant part of the county's economy.

Many farmers and citizens misunderstand the program. Only the development rights are purchased. Property ownership is retained and it can be sold at fair market value for farmland use. Preserved Lancaster County farms are bringing top value to the seller. Recent sales of farms in the eastern part of Berks County have sold for \$7,200/acre. As a result, preservation is financially rewarding to the farmer.

2. **Agricultural zoning through local land use planning and zoning** - To be profitable in today's economy, farmers need more land for more animals and more crops. In the past, zoning has designated land areas for nearly all uses except agriculture. Agriculture has been and continues to be perceived as vacant land waiting for development. Agricultural zones in many cases permit residential or other uses by right; do not limit non-agricultural uses; and create conflicts with non-agricultural neighbors (e.g. flies, odor, traffic, pesticides, noise, etc.). The municipal comprehensive plan provides the legal basis for agricultural zoning to support agricultural preservation, addresses productive soils, and demonstrates that agriculture is an established land use that is important to the local economy. Proper agricultural zoning is critical to minimizing conflicts. It should limit non-agricultural uses (i.e. housing) provide for agricultural production and agricultural businesses; and set standards for large scale agricultural operations. These provisions provide certainty to the farming community that agriculture has a place in the

community's future – with or without farmland preservation programs that provide compensation and site-specific land protection.

Agricultural zoning techniques include:

- Subdivision limitations – to reasonably limit, though not exclude, subdivision for development; the sliding scale technique has been upheld in the Pennsylvania court system.
- By right uses limited to agricultural activities – those that are compatible with and supportive of agriculture and specify appropriate standards for normal agriculture, including large scale livestock production and processing uses; all non-agricultural uses are permitted by special exception.
- Designation of districts that 1) encompass large contiguous areas, not islands of farmland; 2) avoid areas of present and future development; and 3) allow a municipality to meet its “fair share” responsibility.
- Residential development standards – to specify dwelling locations and clustering on least productive soils, minimum and maximum lot sizes, and the use of agricultural nuisance disclaimer (e.g. attached to real estate sales agreements).



In addition to these protection programs, Pennsylvania has invested in agriculture through other retention programs.

- PAgrows – Under the direction of the Secretary of Agriculture, PAgrows assists farmers, food processors, farmer's market operators and other agricultural businesses to put the pieces of the lending puzzle together. PAgrows assists these farming professions in filing paperwork for government loan programs, understanding the Schedule F on farm tax returns, and other financial questions.
- Center for Farmland Transition – The Center for Farmland Transition assists new farmers looking to get started, existing farmers who wish to make changes to their operations, and those transitioning their assets either to retire or for new careers. The Center harnesses the work of Penn State Extension and other entities in the state that have compiled and produced information that is vital to farmers in transition. Lebanon County can utilize the Center for those transitioning both in and out of farming to sustain its agricultural economy, landscape and heritage.

- Pennsylvania Preferred – Pennsylvania Preferred is a program designed to brand locally sourced Pennsylvania products. Within Lebanon County the following companies produce and/or distribute Pennsylvania Preferred products:
 - Aqua-Life, Inc., Richland
 - ASK Foods, Inc., Palmyra
 - Baklava Goddess, Inc., Schaefferstown
 - Food Kart, Lebanon
 - Gray's Apple Ridge Orchard, Jonestown
 - Hain Pure Protein Corp., Fredericksburg
 - Henry Molded Products, Lebanon
 - Laudermilch Meats, Inc., Annville
 - Manna Foods, LLC, Lebanon
 - McGeary Organics, Annville
 - McGeary Organics, Inc., Annville
 - Plain & Fancy Custom Cabinetry, Schaefferstown
 - Sandi's Breads, Annville
 - Seltzers Smokehouse Meats, Palmyra
 - Stony Bridge Landscaping and Garden Center, Lebanon
 - Ulrich's Farm Market, Schaefferstown
 - Weaber, Inc., Lebanon
 - Zweiers Food Kart, Lebanon
- Pennsylvania Agritourism and Blue Ribbon Passport. In 2004, the Department of Agriculture created the Blue Ribbon Passport program to promote tour packages of county fairs, wineries, bed and breakfasts, and other events that highlight agriculture within various regions within the State. To date, Schuylkill, Lehigh, and Berks County have created Blue Ribbon Passport brochures to promote these locations, including one location in Lebanon County. Lebanon County contains numerous sites with components for creating its own Blue Ribbon Passport. Such a program would entail identifying sites open to the public, developing a touring route to visit the various locations, establishing guidelines that address private property boundaries, and promoting the tour through a pamphlet, the county and partner agency websites, and other means. An individual or office would function as a point of contact for individuals interested in more information in participating in the tour.

What is the Future of Agriculture in Lebanon County?

The Penn State Cooperative Extension began an initiative in 2005 to explore this issue with the local farming community. Through outreach meetings and interviews, the Extension staff made several key findings and recommendations. These findings and recommendations were marked as “preliminary” and the outreach program suspended due to the limited participation by the farming community, which may not fully represent the farming community. Further discussion of the issues raised to date is needed if the public sector is to respond in support of the agricultural industry.

Preliminary Findings on the Future of Agriculture in Lebanon County

- 84% of farms are owned by individuals and 16% by family partnerships
- 18% of farmers plan to farm for 1-5 more years, 11%, 6-10 more years, and 26% are not certain how long they will remain in farming
- Financial stability underlies farmers’ plans for future farming. The cost of farmland for sale, lack of farmland for rent, and strained farm/non-farm communications were major factors that caused farmers to begin questioning the future of agriculture.
- Energy/fuel costs, the rising price of farmland, the increase in the county’s population and the loss of neighboring farms were trends that threaten the future of agriculture, according to 4 out of 5 farmers.

Based on this research, the future of agriculture in Lebanon County could be improved through three clear actions: 1) the development of a Crop Management Association to help farmers maintain a working knowledge of nutrient management requirements; 2) the expansion of the Farm-City program for better agricultural literacy among citizens and farm/non-farm relations; 3) increased technology and business management education for farmers.

Need for a Comprehensive Agricultural Strategy

Findings from the assessment of current farmer, industry and farmland protection methods and the Future of Agriculture in Lebanon County, as well as the model program developed by Berks County, suggest that Lebanon County needs a more comprehensive strategy to sustain its agricultural economy. Such a strategy would include the following:

1. An agriculture task force. This group would work in tandem with the Farmland Preservation Board for the preservation of farmland; the task force would promote the importance of farmland preservation through agriculture preservation zoning and the purchase of agriculture conservation easements, while the board would administer the program and review applications.
2. An acreage goal for farmland preservation. This number would consider active farmland, agricultural soils, lands zoned for agriculture, lands enrolled in the ASA program, and the spatial distribution of current preserved farmland illustrated as the farmland preservation plan or map.

Using Berks County’s preservation program as a model, figures should include:

	Berks County¹	Lebanon County
Total county acreage	550,000	234,000
Acres in farmland	189,912	99,996
Percent in farmland	34.4%	42.7%
Acre goal for agricultural use	168,000	98,109
Acres in effective agricultural zoning	154,000	114,921
Percent in effective agricultural zoning	28.0%	49.0% in agricultural zoning, predominantly with slide scale provisions
Acre goal for farmland preservation (easements)	80,000	75,000 ² -98,000 ³

¹ As of November 2007

² As estimated by the Lebanon County Planning Department

³ As established by the Lebanon County Agricultural Land Preservation Board and Conservation District

3. Establish agriculture protection zoning for all desired farmland. Provide incentives to municipalities to strengthen or renew their agricultural zoning provisions and establish such zoning in those municipalities that have significant farmland and lack agricultural land protection, namely North Annville, Union, and North Londonderry Townships.

4. Seek funding for the permanent preservation of agricultural land through the purchase of agriculture conservation easements. Without large sums of money put to this program, the future of the agriculture industry will be compromised. At minimum, establish local funds to match the available state allocation. Capital investment sends a strong message to all about the importance of the agricultural industry to Lebanon’s economy and its future. It also saves tax dollars as that land will not be houses which drive up the cost of community services, especially if housing developments are constructed where there are no community services and infrastructure.

5. Employ an agriculture industry coordinator. This coordinator would be a leader for education and public relations, farmer and food products industry retention and growth, and farmland preservation. With such a large and diversified industry, a go-to person would help government, agencies, and citizens understand the importance of the industry and would improve agricultural literacy in the community. The coordinator might also help local farmers and citizens understand the implications of state and federal legislation, such as the 2007 Federal Farm Bill, and work with the Lebanon County Tourist Promotion Agency to develop agri-tourism in the county.

6. Establish a Crop Management Association to help farmers maintain a working knowledge of nutrient management requirements.
7. Establish educational and training programs to assist farmers in developing their technology and business management skills.

Berks County's Farmland Preservation Strategy

Berks County's Zoning Incentive Programs aim to protect agriculture as an ongoing component of the county's economy. It reimburses a municipality for the cost of adopting agricultural zoning through its agricultural preservation zoning incentive program and conservation zoning incentive program as funded by federal grants and by the county. The program is consistent with the county comprehensive plan.

Berks County Incentive Program Process

1. Meet with municipal officials to introduce program.
2. Enter into agreement between municipality and county.
3. Municipality hires planning consultant.
4. Committee of farmers, landowners, and officials formed to develop ordinance or tailor model ordinance (purpose and provisions in the text) and determine location (district/map).
5. Hold meetings. All meetings are advertised and open to the public. Berks County Planning Commission and Extension Office staff attend meetings to support discussion.
6. Committee submits ordinance and map to municipal planning commission; Berks County confirms consistency with county plan and program; governing body adopts ordinance.

Berks County's AZIP (Agriculture Zoning Incentive Program) has yielded huge successes. By spending \$66,000, 11 municipalities placed over 70,000 acres under Agriculture Preservation Zoning. These areas matched the county's comprehensive land use plan.

A model agriculture zoning ordinance is available from Berks County. When used, it is reviewed and revised to suit each municipality. The model ordinance:

- Allows farm related businesses and limits scale through number of employees and space dedicated to business
 - Uses animal units per acre to address different scales of animal production; as size of operation increases, more standards apply
 - Requires best management practices for mushroom operation (Berks County's most intensive agricultural sector)
 - Sets environmental standards for large pork producers
- In principle, it allows modern agriculture by right, based on economics of sustaining a family on a particular commodity.

Berks 2020, the Berks County Comprehensive Plan, shows the following goals for agricultural land preservation. Of the 550,000 total acres in county:

- A goal for future agricultural use of 168,000 acres – a larger goal of 200,000 acres is used to rally support for farmland preservation and additional conservation areas
- A goal of 154,000 acres in effective agricultural zoning
- A goal of 47,000 acres in easements

Sustaining the Forest Products Industry

As the seventh largest employer in Pennsylvania, the forest industry accounts for 10 percent of the manufacturing jobs. Every dollar in timber sales yields an estimated \$17 in economic value. In Lebanon County, the industry includes primary processors, such as loggers and sawmills; secondary processors, such as furniture, flooring, and cabinet manufactures; and allied industries, such as lumber wholesalers, retailers, and equipment suppliers.



Local companies such as Weaber, Inc., a Sustainable Forestry Initiative, Inc. participant and certified producer of hardwood lumber, including raw hardwood logs, finished boards, molding, flooring, and stair treads, and Rigidply Rafter, Inc., a major manufacturer of roof systems and laminated products, have located and grown in Lebanon County due to their proximity to forested lands and regional access to mid-Atlantic markets. The sustainability of forest lands concerns these companies. While approximately 25 percent of the logs for local processors come from land being cleared for development, the industry understands that this supply is not sustainable.⁶ Poor forest regeneration and forest fragmentation impact the quality of timber growing in the region. If forests are not managed for long term production, yields may decline and timber prices will rise. For these reasons, sound land planning by local government and forest management or stewardship plans for private forest tracts are needed to sustain the supply and quality of local timber and wood products. In Lebanon County, local zoning generally permits forestry without undue restrictions; however, regulations could do more to encourage the conservation of remaining forest resources from future development. On the private sector side, forest stewardship plans have been developed to aid in sustaining forest land in Lebanon County.

As heavy users of the state and local roadways, a well-maintained transportation system is also important to processors and allied industries. Weight limits on bridges require re-routing and result in delays in supply and product delivery. Poor road conditions wear down trucks and equipment.

Proper forest management ensures a forest's long-term health and preservation of the environmental quality provided by forest ecosystems. A forest stewardship program can promote proper management of forest and woodland resources by educating and developing the forest landowner's unique relationship with the land. Support of forest management objectives from residents is also important to sustaining the forestry industry in Lebanon County. Therefore a forest stewardship program should not only include the landowner, but also educate the county citizenry that timber harvesting is an essential tool of good forest management.

⁶ Per communication, May 13, 2005, Tom Buzby and Stan Templin, Weaber, Inc.

Sustainable Use of Water Resources

Balancing environmental, human, and economic water needs is a critical challenge for Lebanon County. Unlike land-based resources, water moves through the community and the landscape. As it does, its volume and quality at any given location are impacted by the natural environment, utility systems and land management activities it encounters. The complexity of this water or hydrologic cycle makes it impossible to comprehensively manage water supply and quality at a single location.

The most effective approach to protecting water resources is managed development – its amount and location. Local officials have the most direct influence on stormwater runoff and groundwater recharge through the authority to regulate land use. Comprehensive plans and their implementing of ordinances are the tools available to protect water resources. Unfortunately, this water cycle and associated impacts from development are not well understood by local officials. A better understanding of the available and renewable water supply, impacts from development, and best planning and management practices is needed to implement better planning at the local level.

A comprehensive study of Lebanon County’s water resources should be initiated to define the current availability of water in the county and related regions, describe how the hydrology of the system functions, and provide a baseline for comparing existing conditions and projected trends. A detailed hydrogeologic investigation of the aquifer system should address (1) location of important recharge areas, (2) groundwater availability, (3) the groundwater quality, (4) current and potential sources of contamination, and (5) the relationship of karst features to surface and groundwater flow systems.

An integrated water resources plan should follow to provide recommendations that sustain groundwater recharge, maintain stream baseflows, provide for the flood-carrying capacity of streams, improve water quality, preserve riparian and aquatic resources, and provide adequate future water supply. This would include or be coordinated with the completion of Stormwater Management Plans for Quittapahilla Creek, Swatara Creek, Spring Creek, Conewago Creek, Little Chiques Creek, and Stony Creek and the adoption of associated implementing ordinances by the respective municipalities, as well as the updates to municipal sewage facilities plans. The plans should be consistent with the stormwater plans of the eight designated Act 167 watersheds, as well as the Act 537 municipal sewage facilities plans; a prioritized list of needed stormwater management plans is listed in the Action Plan and a similar list of needed sewage facilities plans or updates is included in the Community Facilities and Services Action Plan. Ultimately, the plans’ recommendations would guide planned growth in a manner that is consistent with the sustainable withdrawal and discharge to streams and aquifers and support the drafting of ordinances and best management practice requirements that promote adequate recharge of groundwater.



Best Practices for Resource Conservation and Management

Subdivision and Land Development Techniques

A more detailed discussion of these techniques, including examples of their application in Pennsylvania, is included in the Growth Management Strategies White Paper in the appendix.

Agricultural Protection Zoning

Agricultural Protection Zoning, or exclusive agricultural zoning, designates areas where farming is the primary land use and discourages other land uses in those areas. Agricultural protection zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development. This technique is most appropriate for areas that are trying to protect an unfragmented agricultural landscape and where there is limited pressure to convert agricultural lands to residential development.

Sliding Scale Zoning

Unlike exclusive use zoning, sliding scale zoning allows some non-farm residential development without special review. The technique limits the number of times that a parent parcel (a parcel existing on the date of ordinance adoption) can be subdivided. Sliding scale zoning can be useful in agricultural areas where there are significant development pressure and land speculation. The use of sliding scale zoning is most effective in areas where a wide range of parcel sizes exist and non-farm development has already begun to occur. Since this method does permit non-agricultural uses, it allows communities to avoid a claim that land has been "taken" without compensation. The use of buffer areas is highly recommended to avoid land use conflicts between new residential development and agriculture fields.

Planned Residential Development

Planned residential development provisions are a means of permitting innovative planned developments or neighborhoods that achieve the preservation of sensitive natural areas or historic sites. This is accomplished by "shifting" development to more appropriate portions of the site.

Transfer of Development Rights

A Transfer of Development Rights (TDR) program allows conservation and development to coexist within a municipality. Growth is directed to preferred locations through the sale and purchase of development rights. Development rights are established for a given piece of land and can be separated from the title of that property. These rights can then be transferred in fee simple from one property to another property where development is desirable and planned. The transfer of development rights leaves the rural landowner in possession of title to the land and the right to use the property as a farm, open space or for some other purpose, and leaves the purchaser with the right to develop more intensively in designated growth areas. In Pennsylvania, this program can only be

used to transfer development rights within a municipality or among municipalities with a joint zoning ordinance. It is up to each municipality to establish procedures for how the transfer is to occur.

A Purchase of Development Rights (PDR) program operates in a similar manner, although the rights are held by a municipality until they are purchased by a developer.

Growing Greener Conservation Design

Growing Greener Conservation Design is a package of related techniques for conserving interconnected networks of open space within expanding communities. It enables local officials to designate and protect portions of nearly every property as each parcel is proposed for residential development. This package of techniques is unique in the way that it accomplishes its conservation objectives without disturbing landowner equity, without constituting a “taking,” without depending upon public tax dollars or landowner generosity, and without involving complicated regulations for transferring development rights from one part of the community to another.

The Growing Greener technique integrates the comprehensive plan, zoning ordinances, and subdivision and land development ordinances. Growing Greener places an emphasis on build-out maps and greenway maps of the comprehensive plan to predetermine the location of open space. Open space zoning and density determination based on unconstrained lands are included in the zoning ordinance. Practices pertaining to the subdivision and land development ordinance include the submission requirements, review procedures, and the four-step design approach. Because Growing Greener encompasses so many different techniques, it requires careful attention and planning to ensure that all necessary regulations are in place. The desired outcomes are difficult to achieve if all of the pieces are not being implemented.

Cluster Development

Cluster Development is a zoning technique which provides flexibility in housing density as a means of integrating at least a minimal amount of open space into a new subdivision. Typically, both lot size reductions and the percentage of open space that are created are fairly modest. The open space that is protected through cluster design may be owned by a homeowners' association, a nonprofit conservation organization, the municipality, or by a combination and used to provide suitable areas for village greens, playing fields, or meadows. Frequently, density is calculated on the basis of total tract area, rather than on actual buildable land area, which results in a density inflation on parcels containing significant amounts of undevelopable land.

Open Space / Conservation Design

Open space / conservation design is an enhanced variation of the cluster zoning technique in which a higher percentage of the site is dedicated to open space. The purpose of this advanced technique is to preserve a larger amount of land for conservation uses, while still allowing full-density development. In contrast to cluster development, where the emphasis is more often placed on providing active recreational areas, open space zoning is more suited for protecting farmland, woodland habitat, historic sites, and scenic views. Under this technique, developers of a subdivision are required to dedicate a significant portion of their unconstrained land to permanent open

space uses. Housing is designed to compliment the aesthetic views of the preserved land and streets are designed to access the residential community in a manner that minimizes disturbance of natural areas. One of the more popular methods advocated by Randall Arendt has been branded Conservation by Design. The four step process 1) identifies primary and secondary conservation areas, 2) designs open space to protect them, 3) arranges houses outside of those protected areas and 4) lays out streets, lots and infrastructure.

Low Impact Development

Low Impact Development (LID) is essentially a stormwater management approach that implements small, decentralized, cost-effective techniques at the lot level. Stormwater is not conveyed to large detention facilities, but rather addressed at the source to resemble the site's predevelopment hydrology. LID meets Pennsylvania's Stormwater Management Policy that requires that post-development runoff rates throughout a watershed do not exceed pre-development levels. The key distinction of LID from other strategies is that LID designs development as a functioning part of the hydrologic system rather than land conservation and growth management.

Model Ordinances for Environmental Protection

In Lebanon County, environmentally sensitive areas are geographic areas recommended for permanent preservation. These areas include the interior forest habitats of the Blue Mountain-Kittatinny Ridge, the unbroken tracts of forest stands in the Highlands, and the contiguous steep slope areas of these locales. Forested riparian areas of headwater streams, riparian corridors and floodplains of all streams and rivers, and prime agricultural soils are valuable resources. Wellhead water supply areas and important recharge zones, especially in the carbonate areas, also comprise essential environmental resources of the county. As previously defined, these natural features contribute to the character of the county and form a foundation for the vision of the Natural Resources Plan.

The purpose of designating environmentally sensitive areas is to preserve important environmental functions these natural features offer for wildlife habitat, water quality assimilation, stormwater drainage and flood attenuation, and infiltration and groundwater recharge. Recognizing the need for sustainable growth, only those features which are vital to preserving the environmental quality in the county are designated.

The table of model ordinances for environmental protection (Table 9-1) offers a summary of example ordinances for the protection and preservation of sensitive environmental resources. Detailed language of the ordinances is included in the appendix.

Table 9-1 Model Ordinances for Environmental Protection

Model Ordinances for Source Water Protection		
Ordinance	Reference	Comment
Wellhead Protection Zone	South Middleton Township, Cumberland County, PA	This model has a good set of definitions and an easy-to-reference table of regulated uses by zone. It includes three appendices of maps, pollutant thresholds, and best management practices in text and graphics. The model also addresses the specific karst geology of the Great Valley.
Reservoir Protection Overlay Zone	U.S. Environmental Protection Agency	The Reservoir Protection Overlay Zone regulations are intended to ensure the adequate protection of current or potential public water supply reservoirs. The establishment of these regulations is intended to protect public health, insure the availability of safe drinking water, and prevent the degradation of the water supply in the reservoir through the regulation of land uses and development within the reservoir drainage area.
Groundwater Protection Overlay District	U.S. Environmental Protection Agency	The purpose of the Groundwater Protection Overlay District is to protect public health and safety by minimizing contamination of shallow aquifers and preserving and protecting existing and potential sources of drinking water supplies. It is the intent to accomplish this through both public education and public cooperation, as well as by creating appropriate land use regulations that may be imposed in addition to those currently imposed by existing zoning districts or other county regulations.
Watershed Management and Protection Area Overlay	York County, Virginia	The Watershed Management and Protection Area Overlay District ordinance uses a watershed approach to preventing contamination of surface drinking water supplies through land use regulation and impact study requirements.
Carbonate Area District Ordinance	West Whiteland Township, Chester County, Pennsylvania	To protect the water resources associated with carbonate geologic formations in West Whiteland Township, from land-use and development patterns that would threaten their quality and quantity as a result of pollution and the alteration of natural drainage patterns.
Model Ordinances for Riparian Buffer Preservation and Stream Protection		
Buffer Protection and Management	Baltimore County, Maryland	The Buffer Protection and Management Ordinance is intended to provide riparian buffer design standards, building set backs, and buffer management criteria. The Baltimore County, Maryland ordinance includes language specifying the expansion of buffers for erodible soils and steep slopes.

Table 9-1 Model Ordinances for Environmental Protection (continued)

<i>Model Ordinances for Riparian Buffer Preservation and Stream Protection</i>		
<i>Ordinance</i>	<i>Reference</i>	<i>Comment</i>
Stream Buffer Ordinance	U.S. Environmental Protection Agency	The Stream Buffer Ordinance is intended to provide numerous environmental protection and resource management benefits to water resources.
<i>Model Ordinances for Forest Conservation</i>		
<i>Ordinance</i>	<i>Reference</i>	<i>Comment</i>
Timber Harvesting Ordinance	Penn State Cooperative Extension	The model has been developed with the intention of being fair to all stakeholders affected by a timber harvesting operation, from the local citizens to the forest landowners and the forestry industry. This balanced approach leads to an ordinance whose standards are considered to be "reasonable." In this model ordinance, eight sections deal with topics appearing most frequently in existing ordinances, each followed by a discussion of that section's function and purpose. The sections include: (1) policy; purpose, (2) scope; applicability, (3) definitions, (4) notification; preparation of a logging plan, (5) contents of the logging plan, (6) forest practices, (7) responsibility for road maintenance and repair; road bonding, and (8) enforcement.
<i>Model Ordinances for On-Lot Disposal Systems</i>		
<i>Ordinance</i>	<i>Reference</i>	<i>Comment</i>
On-Lot Management Program	Lebanon County, Pennsylvania	An On-Lot Management Program is designed to ensure that On-Lot Disposal Systems (OLDS) are maintained properly to avoid malfunctions or failures.

Interrelationship of Natural Resources Plan with other Elements of the Comprehensive Plan

Ridgelines, stream corridors, and geologic formations span not only municipal boundaries but also elements of community development. This integration is characterized below.

Economy

Land, minerals, vegetation and wildlife support local industries, such as agriculture, forestry, mining and quarrying and recreation. The protection and sustainable use of natural resources strengthens the economy and ensures a future for these industries.

Land Use and Infrastructure

The land use policies recommended within this plan focus growth to areas of existing and planned infrastructure. Through this growth management approach, agricultural and forested open space is conserved, energy demands are reduced, and natural communities are protected. For those resources that traverse the growth areas, greenways provide protected travel corridors. Managing land use to protect the water supply and quality ultimately benefits public water customers with minimal increases in water rates.

Transportation

Many natural resources, such as ridgelines and stream valleys, provide a naturally connected network for non-motorized, recreational travel. The Appalachian Trail and Horseshoe Trails follow the scenic ridgelines of Blue Mountain and South Mountain, respectively. The Swatara Creek Water Trail takes advantage of the creek's expansive corridor. Design and construction of transportation corridors whether hiking and paddling trails or highways and bridges need to consider the presence and function of natural resources and minimize the environmental impacts they impose on these resources.

Recreation, Historic Resource Preservation, and Greenways

Cultivating a stewardship ethic among citizens can be coordinated with other community initiatives. Outdoor recreation can draw citizen's attention to the presence and quality of forested lands. Local heritage can feature natural resources that have led to the establishment of local industries. Furthermore, the designation of greenways can raise awareness for the functions and interconnectedness of land and water resources.

Action Plan

The Natural Resources Action Plan presents actions to address the challenges of maintaining the county's natural resources with the complexities of managing growth and development. These actions were developed after consideration of 1) community input on issues and concerns, 2) review of studies and plans from other organizations, 3) inventory of significant natural resource assets and baseline conditions, and 4) evaluation of existing regulations that impact natural resources.



The Natural Resources Action Plan recognizes the importance of promoting the quality and quantity of water, land, and ecological resources while sustaining the economic vitality of Lebanon County. Although the natural resources in Lebanon County are diverse, they are interrelated. Therefore, the actions help preserve these relationships and maintain the unique character of Lebanon County.

The Action Plan begins with an overview of the strategic framework of the plan. That is, the goals and objectives that the plan will ultimately help to achieve. This is followed by the set of recommended action items that, when implemented, will work toward achieving the desired goals and objectives. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are included.

Vision, Goal and Objectives

Vision

Achieving a balance among environmental, human, and economic needs in Lebanon County is a challenging task. While natural features are critical for the ecological functions and economic benefits, preserving all these natural features in a pristine state from the impacts of development is not be practical. Changing land uses will cause impacts to these natural resources that define the character of Lebanon County. However, striving to accommodate planned growth in a manner that maintains the functionality of these natural resources is a desire of the county's citizenry.

It is important that government decision-makers and the public be aware that ecologically sensitive features, such as floodplains, wetlands, and steep slopes, may be set aside and avoided upon future development. These areas are critical to the natural hydrologic functions of watersheds and serve to reduce property loss, which can lead to enormous costs for residents. Preserving natural areas can reduce soil erosion, protect water quality, improve water supply, and prevent floods, and also provide opportunities for compatible land uses such as recreational greenways and local parks.

Likewise, agriculture and forestry provide both ecological and economic benefits and preserve the aesthetic landscapes of the county. Forestry thrives on the northern and southern mountains and property owners strive to manage these lands by maintaining the

resource. The agricultural industry thrives on the fertile soils and climate of the Lebanon Valley maintaining open space area by aggressively preserving farmland through zoning and agricultural land preservation programs. Both offer sustainable production of marketable commodities while sustaining vegetated open space that filters the air.

Lebanon County's vision for its natural resources is to achieve a balance of environmental, human, and economic needs that protects environmentally sensitive areas, preserves natural resources features, sustains the integrity and function of watershed processes, maintains clean air, and enhances the unique character of Lebanon County by managing growth in the most appropriate areas. The following goals, objectives, and recommendations support that vision.

Goals and Objectives

1. Maintain and enhance the quantity and quality of water resources.

- A. Promote sustainable groundwater and surface water protection through land use planning and best practices for land development.
- B. Complete Act 167 studies, watershed assessments and watershed conservation plans for all watersheds in the county.
- C. Minimize site disturbance and stormwater generation due to increased impervious surfaces, maximize infiltration and maintain or improve stormwater quality.
- D. Support restoration of impaired streams and best practices for stream protection.
- E. Support and encourage municipalities to integrate water resources planning with land use planning.
- F. Coordinate protection efforts through partnerships between state and local agencies, trusts, conservation groups and private entities.
- G. Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.
- H. Facilitate water-based recreation activities.

2. Protect and preserve Lebanon County's diverse ecologically sensitive areas.

- A. Discourage and limit development activity in ecologically sensitive areas. These areas include floodplains, wetlands, mountain ridges and steep slopes
- B. Develop greenway corridors to provide connectivity between significant ecologically sensitive areas.
- C. Coordinate protection efforts through partnerships between state and local agencies, trusts, conservation groups and private entities.
- D. Develop and implement incentive and assistance programs for the preservation of important ecologically sensitive areas.
- E. Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.

- 3. Protect prime farmland, sustain the agricultural economy, and promote the rural heritage of Lebanon County.**
 - A. Develop and implement a comprehensive agricultural sustainability strategy.
 - B. Increase agri-tourism within the county.
 - C. Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.

- 4. Encourage a healthy balance between the economic benefits of forestry and mineral extraction and the sustainability of the operation and associated effects on the natural environment.**
 - A. Support initiatives to minimize effects on the natural environment, including the potential for pollution of the groundwater, that are associated with mineral extraction and quarrying operations.
 - B. Encourage responsible mineral extraction operations within the county.
 - C. Promote the multiple benefits that the woodlands and forests in Lebanon County have to offer.
 - D. Coordinate an educational program to promote woodland management planning with local property owners and the Lebanon County Conservation District.
 - E. Support the initiatives of Audubon Pennsylvania to focus public attention on the importance of the forested ridge, to promote conservation activities, and to protect the ridge from further habitat loss, fragmentation, and inappropriate land use.
 - F. Coordinate protection efforts through the promotion of partnerships between state and local agencies, trusts, conservation groups and private entities.
 - G. Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.

- 5. Maintain EPA's attainment status for air quality in Lebanon County.**
 - A. Measure air quality and assess trends.
 - B. Acknowledge air quality impacts from development in public policy.
 - C. Promote voluntary air pollution reduction among citizens.

Recommendations

Goal 1:	Maintain and enhance the quantity and quality of water resources.
Objective 1A:	Promote groundwater and surface water protection through land use planning and best practices for land development and land management.
Action 1A1:	Improve surface water quality in streams assessed as impaired to achieve state designated use water quality standards in all streams.
Intended Outcome:	Implementation of the Total Maximum Daily Load (TMDL) recommendations. Reduction in the number of impaired streams from the Integrated Water Quality Monitoring and Assessment List in Lebanon County, beginning with the headwater streams and those streams supporting the most sensitive resources.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Pennsylvania Department of Environmental Protection; Lebanon County Conservation District
Support Partners:	Local watershed associations; Chesapeake Bay Foundation
Funding Sources:	Pennsylvania Department of Environmental Protection and Pennsylvania Department of Conservation and Natural Resources Growing Greening Grant Program; Chesapeake Bay Targeted Watersheds Grant Program
Action 1A2:	Improve aquifer recharge and groundwater quality by identifying significant aquifer recharge areas and developing overlay ordinances to protect and preserve those areas most critical to the groundwater supply.
Intended Outcome:	Municipal governments are provided important resource feature information to assist in planning for future growth.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department; Lebanon County Conservation District; Municipalities
Support Partners:	Pennsylvania Department of Environmental Protection Bureau of Watershed Management; Water Planning Office; U.S. Geological Survey; PA Bureau of Topographic and Geological Survey; Susquehanna River Basin Commission; Delaware River Basin Commission.
Funding Sources:	Pennsylvania Department of Environmental Protection and Pennsylvania Department of Conservation and Natural Resources Growing Greener Grant Program; U.S. Geological Survey Cooperative Water Program

Action 1A3:	<i>Accelerate agricultural management training, planning, and BMP implementation by developing and updating Agricultural Conservation Plans and Nutrient Management Plans as a means to conserve soil and water resources.</i>
Intended Outcome:	Improved groundwater quality, i.e. reduction of groundwater contaminants from agriculture.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District
Support Partners:	Pennsylvania Farm Bureau; Natural Resource Conservation Service; Pennsylvania Department of Agriculture, State Conservation Commission; Lebanon County Cooperative Extension Office
Funding Sources:	Nutrient Management Grant Program; Plan Development Incentives Program; Agri-Link Investment Program; Chesapeake Bay Financial Assistance Program; Environmental Quality Incentive Program
Action 1A4:	<i>Complete a comprehensive study of Lebanon County's water resources to provide guidance and recommendations to accommodate existing land use and planned growth in a manner that preserves the quality and quantity of the streams and aquifers.</i>
Intended Outcome:	Information on location, availability, and vulnerability of the water resource supply. Specified community growth and resource protection areas.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Planning Department; Lebanon County Conservation District; Municipalities
Support Partners:	PA DEP Bureau of Watershed Management; Land Develop Companies
Funding Sources:	PENNVEST Low Interest Loans; Pennsylvania Department of Environmental Protection Stormwater Management Grants; Pennsylvania Department of Community and Economic Development

Objective 1B: Support the development of watershed-based stormwater management plans.

Action 1B1: *Complete Act 167 plans for the six remaining designated watersheds in Lebanon County with the priority watersheds being those in the high growth areas of Lebanon County.*

Intended Outcome: Completion of stormwater management plans for all of Lebanon County. Improved management of stormwater for appropriate groundwater and surface water recharge.

Time Horizon: 2008-2009 for Quittapahilla and Spring Creek; 2010-2011 for Swatara Creek; 2012-2013 for Conewago and Little Chiques Creek; 2014-2015 for Stony Creek

Lead Partners: PADEP Bureau of Watershed Management, Stormwater Management Program; Lebanon County Conservation District, Lebanon County Planning Department

Support Partners: Municipalities; Developers

Funding Sources: PENNVEST Low Interest Loans; Pennsylvania Department of Environmental Protection Stormwater Management Grants

Objective 1C: Minimize site disturbance and stormwater generation due to increased impervious surfaces, maximize infiltration and maintain or improve stormwater quality.

Action 1C1: *Provide information and technical assistance on low impact development and design techniques.*

Intended Outcome: Review of all municipal ordinances for unnecessary requirements for impervious cover for land development. Incorporation of low impact development and design standards.

Time Horizon: Ongoing throughout plan implementation and updates

Lead Partners: Municipalities; Municipal engineers; Land Development Companies

Support Partners: Center for Watershed Protection, Builders for the Bay; Pennsylvania Department of Community and Economic Development; Chesapeake Bay Program; Center for Chesapeake Communities; U.S. Environmental Protection Agency

Funding Sources: Municipalities; Pennsylvania Department of Community and Economic Development

Action 1C2:	<i>Support multi-municipal efforts for stormwater management through consistent implementation and enforcement of ordinances from adopted Act 167 plans.</i>
Intended Outcome:	Reduction in stormwater generation.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	Lebanon County Conservation District
Funding Sources:	PENNVEST Low Interest Loans; Pennsylvania Department of Environmental Protection Stormwater Management Grants
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Objective 1D:	<i>Support restoration of impaired streams and best practices for stream protection.</i>
Action 1D1:	<i>Design and install stream improvements to achieve reasonable results for aquatic environments and water quality.</i>
Intended Outcome:	Improved stream habitat and water quality with recognition that restoration of impacted waterways may have limitations; some human impacts cannot be removed or cannot be removed at a reasonable cost to the community. Maintenance of Chapter 93 stream designations and meet state water quality standards.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District
Support Partners:	Local watershed associations; Municipalities; Developers
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources Growing Greener Land Acquisition Grant and Pennsylvania Department of Environmental Protection Growing Greener Stream Restoration
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Action 1D2:	<i>Support adoption of stream buffer ordinances.</i>
Intended Outcome:	Improved stream habitat and water quality.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Conservation District
Support Partners:	Local watershed groups; Municipalities; Developers; Lebanon County Planning Department
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources Growing Greener Land Acquisition Grant; Pennsylvania Department of Environmental Protection Growing Greener Stream Restoration

Objective 1E:	Support and encourage municipalities to integrate water resources planning with land use planning.
Action 1E1:	<i>Expand public water and sewer service only to designated growth areas.</i>
Intended Outcome:	Reduced rate of development of rural lands; protection of recharge areas.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Municipal Authorities; Municipalities; Agencies that Fund Infrastructure such as PENNVEST, USDA, and local financial institutions
Support Partners:	Pennsylvania Infrastructure Investment Authority; Pennsylvania Department of Environmental Protection
Funding Sources:	PENNVEST; Pennsylvania Department of Environmental Protection Act 537 Sewage Facilities Planning Grants; Clean Water State Revolving Fund; Drinking Water State Revolving Fund; Engineering Services Program
Action 1E2:	<i>Using the Act 537 guidelines and model On-Lot Disposal Systems (OLDS) ordinances, develop on-lot management districts.</i>
Intended Outcome:	Maintenance of on-lot disposal systems (OLDS) for the protection of groundwater and surface water.
Time Horizon:	2012-2013
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Pennsylvania Department of Environmental Protection
Funding Sources:	PENNVEST Homeowner Loans; Pennsylvania Department of Environmental Protection Act 537 Sewage Facilities Enforcement Reimbursements
Action 1E3:	<i>Develop wellhead protection programs for all public wells, using PADEP guidance.</i>
Intended Outcome:	Wellhead protection for all public water system wells, beginning with public wells in carbonate aquifers.
Time Horizon:	2010-2011
Lead Partners:	Municipal Water Authorities and Water Purveyors
Support Partners:	Lebanon County Planning Department; PA DEP Bureau of Watershed Management; Lebanon County Conservation District
Funding Sources:	Pennsylvania Source Water Protection Program; Pennsylvania Water Resources Education Network; Pennsylvania Rural Water Association

Action 1E4:	<i>Prepare Integrated Resource Plans to meet future water supply and wastewater needs.</i>
Intended Outcome:	Planning for the entire water cycle from source water supplies, to treatment, to wastewater treatment and discharge/infiltration in the context of projected growth.
Time Horizon:	2008-2009
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Pennsylvania Department of Environmental Protection; State Water Planning Office
Funding Sources:	PENNVEST Homeowner Loans; Pennsylvania Department of Environmental Protection Act 537 Sewage Facilities Enforcement Reimbursements; Act 220 State Water Plan
Action 1E5:	<i>Encourage communitywide resolution of sewage disposal problems.</i>
Intended Outcome:	Consensus on the need for sewer service to villages, particularly those where growth is planned.
Time Horizon:	2008-2009
Lead Partners:	Municipalities; Municipal Authorities
Support Partners:	Pennsylvania Department of Environmental Protection; State Water Planning Office
Funding Sources:	Municipalities
Objective 1F:	<i>Coordinate protection efforts through the promotion of partnerships between state and local agencies, trusts, conservation groups and private entities.</i>
Action 1F1:	<i>Review development proposals for consistency with watershed studies.</i>
Intended Outcome:	Implementation of adopted watershed management plans, e.g., River Conservation Plans and Stormwater Management Plans.
Time Horizon:	2008-2009
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	Pennsylvania Department of Conservation and Natural Resources, Rivers Conservation Program; Swatara Creek Watershed Association; Quittapahilla Watershed Association; Tri-County Conewago Creek Association; Pennsylvania Department of Environmental Protection South-central Regional Office
Funding Sources:	Municipalities

Action 1F2:	<i>Consolidate water resources information for shared use by all stakeholders.</i>
Intended Outcome:	Convenient access to water resource data and water management tools by county, local officials and citizens for planning and decision-making.
Time Horizon:	2012-2013
Lead Partners:	PA DEP State Water Plan; Lebanon County Conservation District; Lebanon County Planning Department; Municipalities
Support Partners:	Susquehanna River Basin Commission; Delaware River Basin Commission; U.S. Geological Survey; Municipal Water Authorities; Lebanon County Conservation District; Watershed Associations
Funding Sources:	State Legislative Earmark for Water Resources Planning Act
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Objective 1G:	Maintain and update the City/County Geographic Information System geodatabases with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.
Action 1G1:	<i>Compile water resources information in a comprehensive database from current and future resource assessment investigations and planning projects.</i>
Intended Outcome:	Convenient access to spatial water resource data county and local officials and citizens. Application of such data and tools to local planning and decision-making.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Conservation District; Lebanon City/County GIS; Municipal GIS
Support Partners:	Municipalities; U.S. Geological Survey; Susquehanna River Basin Commission; Delaware River Basin Commission; Pennsylvania Department of Environmental Protection, Water Planning Office; Pennsylvania Spatial Data Access (PASDA)
Funding Sources:	Pennsylvania Department of Environmental Protection Growing Greener Program; U.S. Geological Survey Cooperative Funds; County and Municipalities
Action 1G2:	<i>Measure and report the progress of stream restoration efforts.</i>
Intended Outcome:	Regular reporting of progress toward implementation of TMDL plans and removal of streams from the 303(d) impaired waters list.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District; Local watershed associations
Support Partners:	EPA Chesapeake Bay Program, PA DEP Chesapeake Bay Program, Lebanon County Conservation District, Swatara Creek Watershed Association; Quittapahilla Watershed Association; Tri-County Conewago Creek Association; Chesapeake Bay Foundation; Trout Unlimited, PA Game Commission; PA Fish and Boat Commission
Funding Sources:	Chesapeake Bay Target Watershed Program; Pennsylvania Department of Environmental Protection Growing Greener Program

Objective 1H: Facilitate water-based recreation activities.

Action 1H1:	<i>Link water trail system to other recreation, cultural and open space assets.</i>
Intended Outcome:	Improved/expanded public access to water resources for recreation. Improved public understanding of the need to preserve and protect the water resources.
Time Horizon:	2012-2013
Lead Partners:	Local watershed associations
Support Partners:	Lebanon County Planning Department; Municipal Park and Recreation Boards; Pennsylvania Fish and Boat Commission; Trout Unlimited.
Funding Sources:	Pennsylvania Fish and Boat Commission; Pennsylvania Department of Conservation and Natural Resources

Action 1H2:	<i>Expand water resource access opportunities to encourage public use.</i>
Intended Outcome:	Improved/expanded public access to water resources for recreation. Improved public understanding of the need to preserve and protect the water resources.
Time Horizon:	2014-2015
Lead Partners:	Lebanon County Planning Department; Municipal Park and Recreation Boards
Support Partners:	Pennsylvania Fish and Boat Commission; Local watershed associations; Trout Unlimited
Funding Sources:	Pennsylvania Fish and Boat Commission; Pennsylvania Department of Conservation and Natural Resources

Goal 2: Protect and preserve Lebanon County's diverse ecologically sensitive areas.

Objective 2A: Discourage and limit development activity in ecologically sensitive areas.

Action 2A1:	<i>Incorporate steep slope protection provisions in local regulations for Bethel, Cold Spring, North Londonderry, North Annville, and South Annville Townships and Mt. Gretna Borough.</i>
Intended Outcome:	Implementation of consistent steep slope provisions. Protection of public safety and preservation of environmental resources.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	Municipalities with existing steep slope protection provisions; Lebanon County Conservation District
Funding Sources:	Municipalities

Action 2A2:	<i>Review existing steep slope provisions and strengthen them to address the ten steep slope topics.</i>
Intended Outcome:	Implementation of consistent steep slope provisions and strengthening provisions lacking specific criteria for ecologically sensitive areas.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	Kittatinny Coalition; USDA Forest Service; PA Highlands
Funding Sources:	Municipalities; Pennsylvania Department of Conservation and Natural Resources Growing Greener; National Fish and Wildlife Grant Program
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Objective 2B:	Develop greenway corridors to provide connectivity between significant ecologically sensitive areas.
Action 2B1:	<i>Designate the following as conservation greenways: the Blue Mountain/Kittatinny Ridge, the Highlands, the Swatara Creek Greenway, the Little Swatara Creek Greenway, the Quittapahilla Creek Greenway, and the Tulpehocken Greenway.</i>
Intended Outcome:	Designation of priority corridors for resource stewardship.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Conservancy
Support Partners:	Municipalities; Local watershed associations; DCNR; Lebanon County Conservation District; Lebanon County Agricultural Land Preservation Board
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection; Municipalities
Action 2B2:	<i>Seek acquisitions, easements and stewardship plans to protect conservation greenway corridors.</i>
Intended Outcome:	Managed stewardship of conservation greenways.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Conservation District; Lebanon County Agricultural Preservation Board; Lebanon Valley Conservancy
Support Partners:	Lebanon County Planning Department; Municipalities
Funding Sources:	Lebanon County Commissioners; Lebanon County Conservation District; Federal Farm and Ranchlands Protection Program; Pennsylvania Department of Agriculture; Commonwealth of Pennsylvania Growing Greener, DCNR

Action 2B3:	<i>Explore feasibility of additional conservation greenways, e.g. between the Swatara/Little Swatara and Quittapahilla Creek greenways, and between the Highlands and the Quittapahilla Creek greenway.</i>
Intended Outcome:	Improved connectivity of conservation greenways.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Conservation District; Lebanon Valley Conservancy
Support Partners:	Lebanon County Planning Department; Municipalities
Funding Sources:	PA Growing Greener; Pennsylvania Department of Conservation and Natural Resources
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Objective 2C:	Coordinate protection efforts through partnerships between state and local agencies, trusts, conservation groups and private entities.
Action 2c1:	<i>Review development proposals for consistency with watershed studies.</i>
Intended Outcome:	Acceptance and implementation of local watershed studies through municipal ordinances and enforcement.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Local watershed associations; Municipal engineers; Lebanon County Planning Department
Support Partners:	Developers
Funding Sources:	Pennsylvania Department of Community and Economic Development, Pennsylvania Department of Environmental Protection
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Action 2C2:	<i>Develop an educational process to assist in protection efforts.</i>
Intended Outcome:	An improved resource stewardship ethic among Lebanon County citizens.
Time Horizon:	2014-2015
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Municipalities; Local watershed associations; Developers
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources; and Pennsylvania Department of Environmental Protection; Lebanon County Conservation District

Action 2C3: Educate municipal officials, municipal staff and the public on conservation strategies and associated benefits, using meetings, county publications, newspaper and online articles, and other methods, as appropriate.

Intended Outcome: An improved resource stewardship ethic among local officials and citizens.

Time Horizon: Ongoing throughout plan implementation and updates

Lead Partners: Lebanon County Conservation District

Support Partners: Lebanon County Planning Department; Municipalities; Local watershed associations; Developers; Lebanon Valley Conservancy; LEBCO MPO

Funding Sources: Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection; Lebanon County Conservation District; LEBCO MPO

Action 2C4: Support the establishment, development and utilization of the Lower Susquehanna Center for Land and Water.

Intended Outcome: Regional center for technical, funding, outreach and administrative assistance on water resources issues.

Time Horizon: 2008-2009

Lead Partners: Lebanon County Conservation District; Lebanon County Planning Department

Support Partners: Lebanon Valley Conservancy; Local watershed associations; Municipalities

Funding Sources: Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection; Pennsylvania Department of Community and Economic Development

Objective 2D: Develop and implement incentive and assistance programs for the preservation of important ecologically sensitive areas.

Action 2D1: Identify areas for effective wetland banking program.

Intended Outcome: Lebanon County Conservation District manages opportunities for wetland restoration, educates the public of the benefits of wetland restoration and opportunities to secure assistance and funding for wetland restoration.

Time Horizon: 2008-2009

Lead Partners: Lebanon County Conservation District, DEP

Support Partners: Lebanon County Planning Department

Funding Sources: Growing Greener, Pennsylvania Department of Environmental Protection Nonpoint Source Implementation Program (Section 319) grants, Farm Service Agency Conservation Reserve Enhancement Program (CREP); Pennsylvania Game Commission; PennDOT

Action 2D2:	<i>Work with municipalities in updating floodplain delineation.</i>
Intended Outcome:	Floodplain practices, associated ordinances, and FEMA mapping have been reviewed and best management practices have been implemented.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Conservation District; FEMA; Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	FEMA
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Objective 2E:	Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.
Action 2E1:	<i>Measure and report the progress of open space protection initiatives.</i>
Intended Outcome:	Regular reporting of open space protection achievements and priority threats.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Conservancy
Support Partners:	Lebanon County Conservation District; Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection; Lebanon Valley Conservancy
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Action 2E2:	<i>Measure and report the progress of greenway efforts.</i>
Intended Outcome:	Regular reporting of greenway conservation and enhancement achievements.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Planning Department
Support Partners:	Lebanon County Conservation District; Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection; Lebanon Valley Conservancy

Action 2E3:	<i>Install stream gauges and program data collection and delivery to the geodatabase.</i>
Intended Outcome:	Improved stream data.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Pennsylvania Department of Conservation and Natural Resources; Pennsylvania Department of Environmental Protection
Funding Sources:	Pennsylvania Department of Environmental Protection

Goal 3:	Protect prime farmland, sustain the agricultural economy, and promote the rural heritage of Lebanon County.
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Objective 3A:	Develop and implement a comprehensive agricultural sustainability strategy.
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Action 3A1:	<i>Coordinate municipal long range planning acknowledging farming as a developed land use.</i>
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Intended Outcome:	Understanding by local officials and citizens of agriculture as a built land use. Adoption and implementation of effective agricultural zoning.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Planning Department
Support Partners:	Lebanon County Conservation District; Local farmers
Funding Sources:	Pennsylvania Department of Community and Economic Development

Action 3A2:	<i>Establish a farmland preservation target, criteria for preservation, and permanent funding to achieve target.</i>
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Intended Outcome:	Preservation of sufficient farmland to sustain the agricultural industry.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Commissioners; Lebanon County Conservation District; Lebanon County Agricultural Land Preservation Board; Lebanon Valley Conservancy
Support Partners:	Local farmers; Municipalities
Funding Sources:	Bond financing; U.S. Farm and Ranchlands Protection Program; Lebanon County Commissioners; Lebanon County Conservation District; Municipalities; Pennsylvania Department of Agriculture

Action 3A3:	<i>Establish a program to educate farmers on financial matters, maintaining existing farms and transitioning farms to new farmers.</i>
Intended Outcome:	Improved access to farm business assistance programs. Improved retention of farmers and active farmland.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Conservation District; Penn State Cooperative Extension
Support Partners:	Pennsylvania Department of Agriculture’s Center for Farmland Transition; Local farmers; PA Farmlink
Funding Sources:	Pennsylvania Department of Agriculture

Objective 3B: Increase agri-tourism within the county.

Action 3B1:	<i>Identify farms using innovative farming practices.</i>
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Intended Outcome:	Identification of potential agri-tourism sites. Shared knowledge of innovative practices.
Time Horizon:	2014-2015
Lead Partners:	Agricultural Farming Coordinator
Support Partners:	Lebanon County Planning Department; Lebanon County Conservation District
Funding Sources:	Pennsylvania Department of Agriculture

Action 3B2:	<i>Establish a heritage farm recognition/certification program.</i>
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Intended Outcome:	Recognition of historical farms in Lebanon County. Increased public awareness for long-term farms and farming in the county.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Conservation District; Preservation Trust of Lebanon County; Lebanon County Historical Society
Support Partners:	Lebanon County Chamber of Commerce, Lebanon County Tourism Promotion Agency; Lebanon County Recorder of Deeds, Assessment and MIS Offices
Funding Sources:	Pennsylvania Department of Community and Economic Development; Lebanon Valley Chamber of Commerce

Action 3B3:	<i>Establish a historic barn recognition program.</i>
Intended Outcome:	Recognition of historical barns in Lebanon County. Increased public awareness for long-term farms and farming in the county.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Historical Society; Preservation Trust of Lebanon County
Support Partners:	Lebanon Valley Chamber of Commerce; Lebanon County Conservation District
Funding Sources:	Capital Campaign
Action 3B4:	<i>Develop a Blue Ribbon Passport Program for Lebanon County.</i>
Intended Outcome:	Lebanon County will have a successful program that highlights its agricultural heritage, historic structures, bed and breakfasts, and farmers market.
Time Horizon:	2012-2013
Lead Partners:	Pennsylvania Department of Agriculture, Lebanon County Tourism Promotion Agency; Lebanon Valley Chamber of Commerce
Support Partners:	Local farmers; Businesses; Lebanon County Planning Department; Lebanon County Conservation District
Funding Sources:	Pennsylvania Department of Agriculture; DCED; Lebanon County Chamber of Commerce, PennDOT; Pennsylvania Department of Conservation and Natural Resources
<hr/>	
Objective 3C:	Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.
Action 3C1:	<i>Measure and report the success and progress of farmland preservation efforts.</i>
Intended Outcome:	Regular reporting of progress toward the target farmland preservation goal.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District; Lebanon City/County GIS Department
Support Partners:	Lebanon County Planning Department
Funding Sources:	Lebanon County Conservation District

Action 3C2:	<i>Measure and report on the progress of ASA enrollments.</i>
Intended Outcome:	Regular reporting of ASA enrollments as a leading indicator of interest in the farmland preservation program.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District; Lebanon City/County GIS Department; Lebanon County Recorder of Deeds and Assessment Offices
Support Partners:	Lebanon County Planning Department
Funding Sources:	Lebanon County Conservation District

Action 3C3:	<i>Measure and report on lands lost to unplanned development.</i>
Intended Outcome:	Regular reporting of the amount of farmland lost to unplanned development.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District; Lebanon City/County GIS Department
Support Partners:	Lebanon County Planning Department
Funding Sources:	Lebanon County Conservation District

Goal 4: Encourage a healthy balance between the economic benefits of mineral extraction and the sustainability of the operation and associated effects on the natural environment.

Objective 4A: Support initiatives to minimize effects on the natural environment, including the potential for pollution of the groundwater, that are associated with mineral extraction and quarrying operations.

Action 4A1:	<i>Monitor streams to limit the impact of pollution from mineral extraction and quarry operations.</i>
Intended Outcome:	Development of baseline water quality data downstream from mineral extraction sites.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Municipalities
Funding Sources:	Pennsylvania Department of Community and Economic Development; Pennsylvania Department of Environmental Protection

Objective 4B: Encourage responsible mineral extraction operations within the county.

Action 4B1: *Establish performance criteria to limit environmental impacts, e.g. noise, dust, etc.*

Intended Outcome: Adoption of performance criteria in local ordinance provisions associated with mineral extraction.

Time Horizon: 2014-2015

Lead Partners: Lebanon County Conservation District

Support Partners: Municipalities; Lebanon County Planning Department

Funding Sources: Pennsylvania Department of Community and Economic Development; Pennsylvania Department of Environmental Protection

Action 4B2: *Require mine land reclamation consistent with planned growth and conservation goals.*

Intended Outcome: Adoption of mine land reclamation provisions into local ordinances.

Time Horizon: 2012-2013

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities

Funding Sources: Pennsylvania Department of Community and Economic Development

Action 4B3: *Consider development of mineral resource districts, mineral resource protection policies or other appropriate measures to protect the resource and to balance mineral extraction with other land uses.*

Intended Outcome: Sound planning for future mineral extraction activities.

Time Horizon: 2010-2011

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities

Funding Sources: Pennsylvania Department of Community and Economic Development; Pennsylvania Department of Environmental Protection

Objective 4C:	Promote the multiple benefits that the woodlands and forests in Lebanon County have to offer.
Action 4C1:	<i>Develop information and strategies to increase public awareness of Kittatinny Ridge and Highlands Region values and threats.</i>
Intended Outcome:	Increased understanding by local officials and the public on the environmental and recreational assets that the woodlands offer.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Conservation District
Support Partners:	United States Geological Survey; Pennsylvania State University; USDA Forest Service; Kittatinny Coalition; DCNR Bureau of Forestry
Funding Sources:	U.S. Environmental Protection Agency Environmental Education Grants Program; National Fish and Wildlife Foundation; Pennsylvania Department of Environmental Protection Environmental Education Grant Program; Water Resources Education Network.

Objective 4D:	Coordinate an educational program to promote woodland management planning with local property owners and the Lebanon County Conservation District.
Action 4D1:	<i>Develop landowner habitat enhancement and protection initiatives to help private land owners with stewardship and conservation options.</i>
Intended Outcome:	Implementation of healthy forestry practices to maintain sustainable woodlands, capable of timber production and multiple uses.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon County Conservation District
Support Partners:	USDA Forest Service; Kittatinny Coalition; DCNR Bureau of Forestry
Funding Sources:	USDA Forest Service

Action 4D2:	<i>Work with the Forest Stewardship Program to assist forest landowners in better managing their forestlands by providing information, education, and technical assistance.</i>
Intended Outcome:	Improved understanding of the short-term and long-term benefits of improved forest management activities through adequate planning.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	DCNR Bureau of Forestry
Support Partners:	USDA Forest Service
Funding Sources:	Voluntary technical assistance program

Action 4D3:	<i>Work with the Pennsylvania Sustainable Forestry Initiative to assist forest landowners in better managing their forestlands by providing information, education, and technical assistance.</i>
Intended Outcome:	Abundant, healthy, and productive forest resources for future generations have been sustained.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	PASFI (the state implementing agency of SFI, Inc.)
Support Partners:	Lumber and wood product industry partners
Funding Sources:	PASFI technical assistance program; Pennsylvania Hardwoods Development Council of the Pennsylvania Department of Agriculture
<hr/>	
Objective 4E:	<i>Support the initiatives of Audubon Pennsylvania to focus public attention on the importance of the forested ridge, to promote conservation activities, and to protect the ridge from further habitat loss, fragmentation, and inappropriate land use.</i>
Action 4E1:	<i>Implement the recommendations of the Conservation Plan for Kittatinny Ridge Conservation Corridor.</i>
Intended Outcome:	Maintenance of the ecological integrity and viewshed of the Kittatinny Ridge.
Time Horizon:	2010-2011
Lead Partners:	Audubon Pennsylvania
Support Partners:	Lebanon County Conservation District; Nature Conservancy of Pennsylvania; Kittatinny Coalition
Funding Sources:	Pennsylvania Department of Conservation and Natural Resources
<hr/>	
Action 4E2:	<i>Support Part 2 of the Highlands Regional Study in order to develop the most promising strategies to conserve the resource.</i>
Intended Outcome:	The priority lands and natural resources in the Highlands Region have been conserved.
Time Horizon:	2010-2011
Lead Partners:	USDA Forest Service
Support Partners:	United States Geological Survey; Pennsylvania State University; Pennsylvania Department of Conservation and Natural Resources
Funding Sources:	USDA Forest Service

Objective 4F:	Coordinate protection efforts through the promotion of partnerships between state and local agencies, trusts, conservation groups and private entities.
Action 4F1:	<i>Support the efforts of the Kittatinny Coalition.</i>
Intended Outcome:	Increased membership in the Coalition by Lebanon County stakeholders.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Audubon Pennsylvania; Kittatinny Coalition
Support Partners:	Central Pennsylvania Conservancy; Lebanon Valley Conservancy; Fort Indiantown Gap; Lebanon County Conservation District; The Nature Conservancy of PA; Wildlands Conservancy; Pennsylvania Department of Conservation and Natural Resources; PA Environmental Council; PA Land Trust Association; Pennsylvania Forest Products Association
Funding Sources:	Growing Greener Grant Program; USDA Forest Service

Objective 4G:	Maintain and update the City/County Geographic Information Systems geodatabase with current natural resources data to enable the generation of sustainability reports and the tracking of changes over time.
Action 4G1:	<i>Monitor changes in woodland and forest cover.</i>
Intended Outcome:	Regular reporting of changes in forest cover.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon City/County Geographic Information Systems Department
Support Partners:	Lebanon County Planning Department; Municipalities; DEP; DCNR Bureau of Forestry; USDA Forest Service-Highlands Region Project; PA Spatial Data Access
Funding Sources:	Municipalities; Lebanon County

Action 4G2:	<i>Monitor and report protection status of Natural Area Inventory sites.</i>
Intended Outcome:	Regular reporting of the progress made toward the protection of NAI sites through stewardship and land preservation.
Time Horizon:	Ongoing throughout plan implementation and updates
Lead Partners:	Lebanon City/County Geographic Information Systems Department
Support Partners:	Lebanon County Planning Department; Municipalities; Nature Conservancy Technical Science Office; DEP; DCNR Bureau of Forestry; USDA Forest Service-Highlands Region Project; PA Spatial Data Access Municipalities; Lebanon County Planning Department; Pennsylvania Department of Conservation and Natural Resources Wild Resource Conservation Fund and Community Conservation Partnership Program
Funding Sources:	

Goal 5: Maintain EPA’s attainment status for air quality in Lebanon County.

Objective 5A: Measure air quality and assess trends.

Action 5A1: Monitor baseline air quality data, analyze trends, and report findings with the best available (regional) data from DEP and PennDOT.

Intended Outcome: Reduce the negative air quality effects from stationary and mobile sources.

Time Horizon: 2008-2009 and ongoing

Lead Partners: Lebanon County Planning Department; LEBCO MPO; PennDOT; DEP

Support Partners: Air Quality Partnership; FHWA; FTA; EPA

Funding Sources: Public/private partnerships; Current and future TIPS

Objective 5B: Acknowledge air quality impacts from development in public policy.

Action 5B1: Participate in PA DEP pollutant permit reviews for industrial sites.

Intended Outcome: Develop a working knowledge of local air pollutant types and sources

Time Horizon: 2008-2009 and ongoing

Lead Partners: Lebanon County Planning Department; Municipalities

Support Partners: LEBCO MPO

Funding Sources: Lebanon County and Municipalities for staff time

Action 5B2:	Revise zoning to reduce travel demands, i.e. through use of mixed use zoning and bicycle/pedestrian linkages (Energy Conservation Plan Action Item 1F1).
Intended Outcome:	Reduce the dependency on the single occupant automobile by promoting, encouraging, and incorporating the use of public transit, connecting parks and developments with sidewalks and trails, and creating walkable developments.
Time Horizon:	2012-2013 as an implementation of up-to-date municipal comprehensive plans
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	LEBCO MPO
Funding Sources:	Local municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Main Street Program; PA DCED Elm Street Program; PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP) PA DCED Urban Development Program; Community Development Block grants; PennDOT's Transportation Enhancement Program and Safe Routes to School Program (for projects); Pennsylvania Advocates for Nutrition & Activity (PANA); Safe Routes to School Program
Action 5B3:	Continue to use Congestion Mitigation Air Quality (CMAQ) Funds in innovative ways to reduce pollution from mobile sources.
Intended Outcome:	Manage CMAQ Funds effectively so that air quality is improved via LRTP and TIP projects
Time Horizon:	2008/2009 and ongoing
Lead Partners:	LEBCO MPO and staff; County of Lebanon Transit Authority (COLT); PennDOT; FHWA; FTA
Support Partners:	Municipalities; Developers; Susquehanna Regional Transportation Partnership
Funding Sources:	Current and future TIPs; Public/Private partnerships

Objective 5C: Promote voluntary air pollution reduction among citizens.

Action 5C1:	Provide access to air quality information and pollution reduction techniques.
Intended Outcome:	Enable government, businesses and citizens to make environmentally-responsible decisions
Time Horizon:	2009 and beyond
Lead Partners:	Air Quality Partnership
Support Partners:	Lebanon County Planning Department; LEBCO MPO; Municipalities; Businesses
Funding Sources:	Funds not needed
Action 5C2:	Encourage the use of carpooling and transit (Energy Conservation Plan Action Item 1F2 and 1F3).
Intended Outcome:	Increased transit ridership and private ridesharing/carpooling and decreased single occupant vehicle traffic.
Time Horizon:	2008-2009 and ongoing as an implementation to the COLT business plan
Lead Partners:	Commuter Services of South Central Pennsylvania; Susquehanna Regional Transportation Partnership; Lebanon Valley Chamber of Commerce; County of Lebanon Transit Authority (COLT); LEBCO MPO
Support Partners:	Lebanon County Planning Department
Funding Sources:	Susquehanna Regional Transportation Partnership; LEBCO MPO Congestion Mitigation Air Quality (CMAQ) funds; COLT; PennDOT
Action 5C3:	Encourage the use of hybrid or alternative fuel vehicles for public transportation and municipal use (Energy Conservation Plan Action Item 1F4 and 1F5).
Intended Outcome:	Decreased consumption of and dependency on gasoline and diesel fuels.
Time Horizon:	2010-2012
Lead Partners:	Lebanon County Conservation District; Lebanon County Commissioners; County of Lebanon Transit Authority
Support Partners:	Lebanon County Planning Department; LEBCO MPO
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Alternative Fuels Incentive Grant Program; DEP Energy Harvest Grants; Pennsylvania Energy Development Authority Grants (PEDA) Grants; PennDOT and Federal Transit Administration Public Transportation Assistance Funds (typically allocated to County of Lebanon Transit)

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Greenscapes The Open Space, Greenways, and Recreation Plan

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Lebanon County has a unique collection of special places, wonderful landscapes, and a variety of parks that need to be positioned as major assets. The purpose of this plan is to provide the foundation for a new way of thinking about Lebanon County and its parks, recreation, and open space system. These precious assets need to be rooted in a strong foundation of countywide commitment and public support. Together, Lebanon County and its many partners have the potential to define Lebanon County's greenscapes as a network of parks, trails, greenways, and recreation opportunities that are distinct in Pennsylvania. Lebanon County's *Greenscapes*, the comprehensive plan for parks, recreation and open space, focuses on the resources, energy, and strategies for launching this area as a premiere place in which to live, work, and visit.



Greenscapes focuses on the core elements of a high quality recreation system: parks, recreation, greenways and trails. The plan identifies a variety of actions for the county and its partners to undertake in support of the quality of life these facilities and services offer to Lebanon County residents. The actions are designed to build upon the scenic beauty and important natural resources, capitalize on the elements of a park and recreation system that are already in place, harness fragmented resources aimed at a common vision and goals, and tap into the human and financial prospects that are already working. The plan recognizes both the tremendous potential and the limited resources available within the county. Accordingly, it recommends strategies that are rooted in collaboration and that are supported by a mix of public and private partnerships. One thing is certain, Lebanon County cannot be the sole provider of parks and recreation. But the county can be the catalyst for spurring a countywide system of parks and recreation facilities joined by a network of greenways and trails.

The plan is presented in six parts. The first section is an overview of key findings from the *Open Space, Greenways and Recreation Profile, Background Study #5*. The second is a strategic analysis of the strengths, weaknesses, opportunities and threats therein. The third outlines guiding principles for improving parks, recreation and open space throughout the county and a list of key initiatives and roles for public and private sector partners. The fourth explores a county leadership role for the acquisition of additional parkland. The fifth emphasizes the interrelationships of parks, recreation and open space with other community development topics. The final section is the action plan, framed by the goals and objectives and subsequent recommendations. The plan is accompanied by the Parks, Trails, Greenways and Open Space Map.



Overview of the Open Space, Greenways and Recreation Profile

Key Findings of the Profile

The *Open Space, Greenways and Recreation Profile* presents a detailed inventory of park, recreation and open space assets in Lebanon County. It lists each recreation site, trail, and greenway and characterizes planning, programs and initiatives at regional, county and local levels. In conjunction with the findings of public participation activities, it analyzes how well current parkland, recreation facilities, greenways, trails, recreation programs and services, and management meet resident needs.

Parkland

Lebanon County has a diverse range of park and recreation lands that offer residents opportunities to recreate close to home at municipal parks and schools with family and friends, explore the natural resources of the county in the State Parks and State Game Lands, immerse themselves in the history and culture of the county, and hike trail corridors in the great outdoors. Taken together, Lebanon County has the physical components of a comprehensive park system. Conclusions about parkland in Lebanon County include the following:

1. **County Parks** – Lebanon County owns three park sites and is co-trustee of the Clarence Schock Memorial Park at Governor Dick. With these properties, Lebanon County has assumed a role in parks and recreation, namely for ownership of special purpose sites: a memorial, a historic landmark, a rail trail and a natural area with environmental education facilities.
2. **Municipal Parks** – Twenty of the 26 municipalities in Lebanon County have one or more municipal parks. Municipal parks provide traditional close-to-home recreation opportunities such as sports fields and courts, picnic areas, and playgrounds.
3. **Schools** – The six school districts of Lebanon County have land dedicated to recreation purposes and are regional hubs for recreation activities.
4. **Private Recreation Lands** – Lebanon County has numerous private parks, golf courses, campgrounds, and fish and game clubs. These facilities supplement the public parks and are typically membership or fee-based operations.
5. **Parkland Acreage** – Parkland owned by the municipalities and the county totals 820.9 acres, which equates to approximately 6.82 acres per 1,000 residents. The prevailing standard for local parkland established by the National Recreation and Park Association has been 10.5 acres of parkland per 1,000 residents over the past



30 years.¹ There is substantial need for additional local parkland; this conclusion is supported by recreation providers. The primary purpose of state park and game lands is resource conservation; these are not included in acreage calculations for lands primarily dedicated to recreation.

6. **Parkland Acquisition** – Some municipalities are actively pursuing parkland acquisition. Ten of 26 municipalities in the county currently have mandatory dedication of parkland ordinances. Enacting mandatory dedication ordinances is an effective means for municipalities to obtain parkland as they grow. The Mandatory Dedication of Parkland provision in the Pennsylvania Municipalities Planning Code (MPC) enables communities to acquire parkland or develop recreation facilities at no cost through the land development process. Details are available beginning on page 14 of the *Open Space, Greenways and Recreation Profile, Background Study #5*.
7. **Distribution of Parkland** – Parkland is not evenly distributed throughout Lebanon County. The northern and southern areas of the county have significant natural resource park acreage in State Parks, State Game Lands, and the Fort Indiantown Gap Military Reservation; however, their emphasis is on resource conservation, not public recreation, therefore they are not technically considered local public parkland. Community parks are generally clustered among the City of Lebanon and North Lebanon and South Lebanon Townships. With the exception of Jonestown and Myerstown Boroughs and East Hanover Township, most communities beyond the City of Lebanon and its suburbs do not have convenient access to traditional community parks with a mix of recreation activities. Neighborhood and mini parks are found in a handful of communities, though not in strong proportion to population centers where they are needed to offer close-to-home recreational opportunities.

Recreation Facilities

Recreation facilities are the fields, courts, playgrounds, picnic areas, pavilions and playgrounds that recreation participation requires. Recreation facilities should meet the local demand of individuals, families, community organizations, and athletic leagues.

1. **Recreation Needs** – Recreation facilities do not meet current needs in their number, type, condition or distribution. Facilities should be developed to accommodate user needs and sustained recreation trends. Sports fields and courts



¹ Extensive state land is available for limited public recreation in the county. Because the primary use of these lands is resources conservation, not public recreation, these lands are not tabulated as local park and recreation lands.

should be developed to meet program needs. Non-traditional sports such as skateboarding and Frisbee golf should be developed where community outreach indicates a need and where the popularity of the activity is evident.

2. **Safety and Accessibility** – Facilities vary in their safety maintenance and provisions for accessibility. Park facilities should meet the requirements of the Americans with Disabilities Act (ADA). Playgrounds should be renovated to meet the guidelines of the Consumer Product Safety Commission (CPSC) guidelines.
3. **Recreation Trends** – Emerging sports, expanding sports seasons, younger participation ages, growing participation, active seniors, more girls playing sports, and other trends are all influencing the need for additional recreation facilities. More diverse facilities are needed throughout the county.
4. **Fitness and Wellness** – In 2001, the U.S. Surgeon General identified obesity as an epidemic in the U.S., citing nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980. This resulted in major public health concerns for chronic disease. Providing parks and recreation facilities in communities for physical activities is an important action to combat this epidemic.

Greenways

Greenways are corridors of protected public and private land established along rivers, streams valleys, ridges, abandoned rail corridors, utility rights-of-way, canals, scenic roads, or other linear features. They link recreational, cultural, and natural features; provide pathways for people and wildlife; protect forests, wetlands, and grasslands; and improve the quality of life for everyone. Creating a network of green corridors throughout Lebanon County is one means of protecting the landscape character of Lebanon County while enhancing citizens' quality of life.

1. **Understanding of Benefits** – Greenways are a recent approach to conservation along linear corridors in Lebanon County. Residents and community leaders have been introduced to the numerous benefits of greenways primarily through studies, such as the Tulpehocken Greenway initiative. Greenway benefits are economic, social, transportation, ecological, recreation, and environmental education in nature, as detailed on page 24 of the *Open Space, Greenways and Recreation Profile, Background Study #5*. Communication and outreach are important to educate landowners about the importance of greenways and their benefits.
2. **Regional Greenways** – The Kittatinny Ridge, Highlands, and Tulpehocken Greenways traverse portions of Lebanon County and link the county regionally beyond its borders. The Kittatinny Ridge and Highlands Greenways have been identified as major greenways in the county.
3. **Greenway Resources** – Lebanon County has the linear resources to develop a system of interconnected greenways. The Swatara Creek, Little Swatara Creek, Quittapahilla Creek, Tulpehocken Creek, and Conewago Creek all present greenway opportunities.
4. **Connections** – The greenways corridors in the county generally run east-west and north-south. Interconnections are needed to expand the system and provide greater mobility for recreation and wildlife. Municipalities should champion

local links to connect the major and minor greenways to parks, residential neighborhoods, commercial areas, schools, and other community destinations.

5. **Stream Access** – Greenways along streams are important to provide access for fishing and stream activities and to protect ecologically sensitive riparian buffers.

Blueways

Blueways are river and stream corridors of protected open space used for conservation and recreation purposes. They protect natural, historical, cultural, and recreational resources and preserve scenic landscapes.

6. **Blueways** – The Swatara Creek Water Trail is a “blueway” corridor along the Swatara Creek that links Dauphin and Lebanon Counties. The Swatara Creek, Little Swatara Creek, Quittapahilla Creek, Tulpehocken Creek, and Conewago Creek also present blueway opportunities.



7. **Partners** – Lebanon Valley Conservancy and the Berks County Conservancy are partners on the Tulpehocken Greenway initiatives. Continuing to work with these conservancies, water associations, and other partners to protect greenways in the county is critical.
8. **Open Space Protection** – Though open space is still abundant in the county, little is protected for future parkland, local resource conservation, and heritage landscapes for future generations. Work is needed to integrate recreation with long term community planning, e.g. develop plans and ordinances, adopt official maps, seek conservation easements, and use other land use planning tools to tie greenway initiatives to their open space protection initiatives.

Trails

Lebanon County is fortunate to have seven recreation trails in place and additional linear resources that present trail opportunities. Trails are important recreation assets as they are widely used by the broad population and their use promotes health and wellness.

1. **Rail Trails** – The success and popularity of the Lebanon Valley Rail Trail (LVRT) provides momentum for expanding trails throughout the county. The Stony Creek Valley Railroad Grade Trail and the Swatara State Park Trail in northern Lebanon County provide trail opportunities in a natural protected setting.



2. **Regional Long-Distance Trails** – The Appalachian National Scenic Trail and the Horseshoe Trail provide long-distance footpaths for hiking and link Lebanon County to adjacent counties.
3. **Urban Trails** – The Whitmoyer Trail provides a paved corridor through the center of the City of Lebanon. A walking trail winds throughout the 100+ acre Coleman Park.
4. **Trails under Development** – The South Lebanon Township trail could be a model for other municipalities to link neighborhoods with schools, parks and other community destinations.
5. **Trail Opportunities** – Opportunities for new and expanded trails exist in Lebanon County. Work is underway to extend the Lebanon Valley Rail Trail north to the City of Lebanon and a feasibility study has been funded to explore an extension from the city north to Swatara State Park. The extension of the Lebanon Valley Rail Trail north provides a north-south link that will complement the primarily east-west greenway corridors that currently exist. Other corridors and trail routes, such as the recently conceived Lebanon County Heritage Trail and the trail links from Coleman Park to LVRT and Union Canal Tunnel Park, could help to create a comprehensively connected community.
6. **Coordination** – Trails, like greenways, are typically related to linear resources that may extend beyond municipal and county boundaries. Development of a comprehensive trail system will require communication and coordination with partners that span many jurisdictions. Expanding the system to maximize community connections will require coordination with PennDOT, DCNR and many other agencies and groups.



Programs and Services

Recreation opportunities are vitally important to the quality of life. Recreation is the third most important factor in the decision of executives deciding where to locate a business. Where Lebanon County stands in terms of programs and services is summarized as follows:

1. **The Great Outdoors** – The Commonwealth of Pennsylvania is a major provider of recreation opportunities in Lebanon County. Nature based recreation is plentiful with over 30,000 acres of state parks, game lands, historic areas, and forests in the county. Hunting, fishing, trapping, boating, hiking and other outdoor opportunities abound here. The Middle Creek



Waterfowl Project is a regionally significant outdoor recreation asset, especially known for bird watching opportunities.

2. **County Recreation Programs** – Lebanon County does not provide recreation services directly. There is some limited facilitation of recreation at the county level including support of the Clarence Schock Environmental Education Center, support of the county rail trail, funding for Coleman Park and outreach to municipalities and school districts for planning purposes for this plan.
3. **Potential Economic Engine** – Tourism is untapped in Lebanon County compared with its neighbors of Dauphin, Berks and Lancaster Counties.

Recreation is a Deciding Factor for Businesses in Pennsylvania

- When the Pella Corporation was evaluating locations for a manufacturing plant, executives narrowed its site selection to Bedford County or Adams County. Although both counties offered favorable business conditions in terms of facilities, workforce and access to transportation, Adams County won out because the decision-makers determined that there was more to do recreationally in Adams County, which would help the company attract and retain the kind of work force they needed.
- When company leaders were evaluating the former Pennsylvania House manufacturing site as a potential location for a new business, they were attracted by the adjoining premiere destination park and swimming pool. They brought their families back the next week to show them the recreation facilities and other things to do that made the area a desirable place of residence for families.
- Quality of life including access to recreational sites and programs is key to attracting new industry and jobs – particularly high-tech industry, which has few limitations to its location. When a business looks for a new location, business leaders develop a short list of three or four communities that meet their basic needs and the needs of their workforce. Quality of life is one of the biggest factors in choosing the winner from the contenders. Expanding recreational opportunities, developing parks and trails, cleaning up streams, preserving history, providing cultural programs at heritage centers... these are all components to broader economic-development efforts.
~Congressman Jack Murtha, ranking member of the House Appropriations Sub-Committee

4. **Fragmented Services** – Recreation programs and services are available in Lebanon County; however, they are scattered and not coordinated. Better coordination and promotion of parks and recreation would enhance public service and better allocate available funding.
5. **Among 26 Municipalities, there is only one local parks and recreation association.** The Palmyra Area Recreation and Park Commission is the only full service municipal recreation services department in Lebanon County. PARPC has four partners: Palmyra Borough, North Londonderry Township, South Londonderry Township and the Palmyra Area School District. PARPC offers over 200 programs annually and could serve as a model to other municipalities and school districts in the county
6. **Gaps in Close-to-Home Recreation** – Opportunities for the citizens are focused primarily on sports, youth activities, summer recreation and community festivals. There are gaps in service in community recreation: programs for all age groups from pre-school through active aging adults; the arts, music, and drama; environmental education; self-improvement; fitness and wellness; and access to

facilities such as trails for self-directed recreational pursuits. Services for a diversifying, aging population are needed. Services to the Latino community and low-income residents also should be a priority. People of all ages need to have recreation opportunities that they can enjoy year-round throughout their lifetime.

7. **Volunteer Support** – Volunteer organizations such as athletic associations and parks and recreation boards provide most of the organized programs.
8. **Role of School Districts** – School districts are crucial to community recreation programs and services. All six districts host some sort of community recreation at their facilities. Several provide services for senior adults.
9. **Lebanon City: Need for urban recreation opportunities** – Recreation programs and services are greatly needed in the City of Lebanon. Fortunately, partnerships are emerging, notably with the Lebanon YMCA. The Lebanon Area School District has also stepped up to provide support for community recreation. The City of Lebanon and the Coleman Park Board of Trustees have decided to prepare a master plan to update Coleman Park.
10. **Nature: the Next Frontier** – Lebanon County is just beginning to become involved in the environmental education field. The programs that began in 2005 have already proven to be popular. Developing expertise in programming and environmental education, increased promotion, partnership development and revenue generation is needed.
11. **Importance of increasing public awareness** – Promoting recreation programs and services to increase public awareness of the opportunities is crucial.
12. **Related support issues** – Transportation to and from recreation sites is important for those who do not or choose not to drive. Safe access to public recreation areas via non-motorized transportation pathways is needed.
13. **Programs depend upon facilities** – Facilities need to keep pace with recreation participation and trends. Sports fields, indoor recreation, nature areas, trails and pathways and winter sports areas are all needed.
14. **YMCA as a regional service provider** – The Lebanon Valley YMCA is a major provider of recreation programs year round for people of all ages. The YMCA provides major recreation programs in partnership with school districts and the City of Lebanon and handles before and after school child care programs.
15. **Partnerships** – There is a need for more public/private partnerships, like the AES Ironwood and Avon Playground collaboration.
16. **Indoor Recreation** – School districts offer indoor facilities for community recreation use. Each one is working towards as much community use for recreation as possible. However, there are inherent limitations in when school facilities can be used for recreation. Demands can exceed capacity such as requests for gyms for indoor sports. More facilities for year round use would expand recreation opportunities.



17. **Self-Directed Opportunities** – Not all recreation opportunities need to be organized scheduled programs. Opportunities that citizens can undertake at their own discretion need to be available and promoted. Examples include trails for walking and biking, social gathering places and natural areas for peaceful enjoyment. Establishing these types of opportunities is half the battle – the other half is creating public awareness about them.
18. **Cutting Edge Planning in the County** – The Northern Lebanon School District is exploring ways to provide recreation services for people of all ages, not just students. Furthermore, the district is also examining how to provide transportation to recreation destinations for the non-driving population. Transportation is a key factor in access to recreation and is frequently cited as the chief block to recreation by senior adults.

Management and Financing

Over the long term, about 75 percent of the lifetime cost of parks is spent on operations and maintenance. It is relatively easier to obtain the funding to acquire land and build facilities than it is to get funds to operate and manage them. This is epitomized in Lebanon County. The county has received over \$12 million in grants for parks and recreation in the last twenty years but there is no staff in place to manage, program, maintain and promote these facilities. The management of parks and recreation is a major challenge for Lebanon County. Establishing, enhancing, and sustaining a mix of public-private partnerships and financing will be the foundation of a successful countywide system of parks and recreation. Conclusions about recreation management and financing in Lebanon County include the following:

1. **A County in Transition** – The rural history of the county underscores the present approach to recreation management and financing. Recreation management is largely in response to needs as they grew over time. Volunteers, schools and faith based institutions offered services in recognition of the needs of their community or special interests. The rural municipalities with limited budgets and staff could only provide the facilities while community based organizations provided the recreation programs.
2. **Need for Lebanon County to have a defined role in parks and recreation** – Although Lebanon County owns or has interest in over 1,200 acres of parkland, the county does not have a parks and recreation department. Consideration should be given to establishing a formal county role in parks and recreation given the holdings of the county including the Clarence Shock Environmental Education Center. This role does not necessarily require the establishment of a parks department; it could be accomplished through other organizational strategies.
3. **Urban Recreation** – Parks and recreation in the City of Lebanon has experienced major challenges over the last ten years. Prior to the severe financial austerity in the city, there was a full-time



professional parks and recreation department. Today, the city has lost funding and staff for parks and recreation. The Lebanon School District and the YMCA have stepped up to assist the City in recreation programs for youth.

4. **City-County Peer Project** – The Peer-to-Peer Study already funded by PA DCNR to explore the potential for a Lebanon County/Lebanon City partnership in public recreation should be re-constituted in two ways. Consideration should be given to revising the city portion to a city-Lebanon School District partnership rather than a city-county partnership; the city and school district have more common threads and vested interests that could serve as a stronger foundation for a recreation partnership. Consideration should be given to revising the county portion as a peer study for the sustainability of the Clarence Schock Environmental Education Center.
5. **Lack of Organization** – The organization and operation of parks and recreation in Lebanon County is generally fragmented and needs to be organized and coordinated.
6. **Regionalization with PARPC as the Model** – PARPC is a model that demonstrates how small jurisdictions working together along with the school district can have a parks and recreation system that would not be possible with independent entities. The creation of additional regional parks and recreation systems should be considered. Rather than having 23 other municipalities operating independently, several regional associations could be formed. These could be contiguous with school districts for maximum efficiency and coordination.
7. **Maintenance Management** – Parks and recreation facilities systems in the county operate without formal written maintenance management programs. Yet a considerable amount of grant funding and other capital improvement funds have been invested in parks and recreation facilities to maintain them for the health, safety and welfare of the citizens as well as to protect the investment in these community assets.
8. **Recreation planning, direction and evaluation** – There is no formal planning, budgeting and evaluation of parks and recreation in Lebanon County.
9. **Public needs** – There is no on-going needs assessment regarding parks and recreation in Lebanon County.
10. **Need for trail management** – As a countywide trail network is planned and developed, the creation of an entity that would oversee Lebanon County Trails should be considered.
11. **Recreation funding** – Operating budgets for parks and recreation are lower than the state averages. Budgets that were made available for this project indicate that per capita investment is less than \$5 in municipal spending in contrast to a statewide average of about \$26.
12. **Capital Funding** -The main sources of capital funding for parks and recreation are state grants under the Keystone Community grant program, Growing Greener and the Department of Community and Economic Development. At the federal level, the Transportation Enhancement Act has provided capital funding for trails. The Community Development Block Grant program has provided local funding for recreation and parks improvements.

Strengths, Weaknesses, Opportunities, and Threats

The following section is an assessment of Lebanon County's recreation strengths and weaknesses, as well as the opportunities and threats that could have an impact on the county's future creation and support of a countywide system of parks and recreation. This assessment provides the foundation for the strategies designed to harness countywide resources towards a common vision for parks and recreation in Lebanon County.

Strengths

- Lebanon County has the pieces in place for a comprehensive park and recreation system of natural resource areas, State Parks, State Game Lands, historic and cultural resources, community parks, and trails.
- There is an extensive volunteer network and a strong sense of community in which people have the propensity to “pitch in” for parks and recreation.
- There is a track record of successful fundraising i.e. for the Clarence Shock Environmental Education Center and the Lebanon Valley Rail Trail).
- There has been a favorable reaction of school districts and municipalities to the county undertaking and seeking input for this parks and recreation plan.
- Related organizations are favorable to the county showing a leadership role in facilitating a countywide system of parks and recreation through partnerships.
- PARPC is a successful model of a regional recreation partnership that has operated for nearly 30 years.
- Parks and recreation is recognized as a key to the quality of life here.
- Key stakeholders are very much interested in a formal system of communication and sharing about parks and recreation efforts.
- Lebanon County has considerable support from the Commonwealth of Pennsylvania in the form of funding and technical assistance.



Weaknesses

- Lack of parkland to meet current resident needs for close-to-home recreational activities.
- Lack of dedicated parks and recreation staff at the county level could create missed opportunities. It is already difficult for the county to manage the current load of approved grant funding.



- Lack of budget for parks and recreation operations.
- Focus is on capital development without adequate support for operations and management.
- Recreation services are fragmented with little coordination throughout the county.
- Volunteers are stretched thin and in need of assistance. Major efforts such as trail planning, construction and maintenance may outlast current volunteer support.
- Fear of regionalization by municipalities could preclude partnerships.

Opportunities

- Key stakeholders appear to be interested in collaboration in parks and recreation.
- Lebanon County could serve as the catalyst to spur the establishment of a countywide system of parks and recreation through partnerships and municipal relationships.
- Development pressure is not as great as surrounding counties and there are still opportunities for land and corridor acquisition and protection.
- Tourism could become an economic engine for recreation in Lebanon County.
- State Business Development Initiatives. There is a strong commitment at the state level to aggressively address workforce development, including many programs that provide training at low-to-no cost to area residents and businesses. In addition, the Rendell Administration has recently completed (2004-05) a Performance Management Plan to better coordinate the 22 programs included in the Commonwealth's Workforce Development System and make them more accountable.
- Regional Institutions of Higher Education. The various educational institutions in the county, including HACC, Lebanon Valley College, and the Career and Technology Center (CTC) are excellent resources, not only for their role as educators, but also for the promotion and encouragement of innovation and new business start-ups.



Threats

- Development pressures will drive up the cost of land that would prevent the acquisition of land for parks and much needed recreation facilities.
- Indoor recreation facilities may not be affordable. Private and commercial enterprises could deter the establishment of public indoor recreation facilities.
- Inadequate funding will not support parks and recreation operations.
- Lack of formal maintenance management systems will lead to deferred or sub-par care of parks and recreation facilities.

- Volunteers for major regional facilities such as the rail trail may not be able to continue over the long term.
- Benefits of parks and greenways are not widely perceived.
- Development may consume key parcels necessary to form corridors or linkages.

Guiding Principles for a Countywide Parks, Recreation and Open Space System

These guiding principles begin to set a new direction for multiple aspects of the countywide parks, recreation and open space system. They build upon the assets and opportunities for the future development of the system.

- Foster a system of connections that will tie people to the parks and countryside and parks to the people.
- Bond parks, trails, recreation, and open space to the quality of life of Lebanon County.
- Incorporate natural and cultural resources, parks, recreation, greenways and trails as key tourism features that will contribute to the economic vitality of Lebanon County.
- Harness the many disparate parks, recreation areas, and service providers into a network of partnerships driven by a common vision for parks and recreation.
- Build on the sense of community to attain a strong sense of commitment for parks and recreation at the county, regional, and local level.
- Incorporate considerations of the wide range of communities ranging from the urban culture of the City of Lebanon to the growing suburban communities, historic boroughs, and the charming rural areas evocative of the roots of Lebanon County.
- Recognize the limited resources and the need for creative approaches to parks and recreation. Lebanon County cannot be the sole, or even the major, provider of parks and recreation. Building upon the successful history of recreation collaborations on everything from the Lebanon Valley Rail Trail and Clarence Schock Memorial Park to the Palmyra Area Parks and Recreation Commission and school district support will be vital in the future.

These guiding principles can be a reference to which individuals, agencies and local government partners compare their activities and decisions. Will this action promote the protection of sensitive environmental sites? Will this approval foster sound growth and development in our community? Will this new park help to reflect the available natural resources to park visitors? If the answer is yes, partners should feel confident in advancing their actions and approvals. If the answer is no, they should consider what alternatives could better align with these principles.

The Blueprint for Action

The “blueprint” outlines 10 initiatives for assembling the current parks and recreation facilities and natural and cultural resources into a true park system that can meet residents’ recreational needs. It also outlines roles for public and private partners as detailed later in the Action Plan.

Initiatives for System Development

1. Adopt the vision for parks and recreation in Lebanon County. Use it as the guide to decision-making related to parks, recreation, greenways and trails.
2. Take a leadership role in establishing public and private partnerships for the purpose of creating a countywide system of parks, recreation facilities, greenways and trails.
3. Establish a countywide advisory committee composed of members representing municipalities, school districts, state park and recreation agencies, community organizations, people with special needs and those of various ages, interests and geographic locations of Lebanon County. Their purpose would be to work towards the implementation of the Open Space, Greenways and Recreation Plan.
4. Develop a plan for the spine of a county trail system connecting hubs and attractions. Set a target goal with time frames for a designated number of miles to be developed. Work with the municipalities in establishing local trails to connect to the county system and beyond. Incorporate this as part of the local/regional planning process.
5. Coordinate with the Lebanon County Tourist Promotion Agency to use parks, recreation, greenways, trails, cultural resources and eco-tourism to attract visitors. Heritage and agri-tourism popularity is also growing and could be emphasized in Lebanon County.
6. Coordinate with regional organizations, adjacent counties, and government agencies regarding parks, recreation, trail, and greenway opportunities to maximize the benefits for the citizens of Lebanon County.
7. Tie park, trail and greenway opportunities to conservation and resource protection initiatives to maximize the benefits and expand funding opportunities.
8. Promote parks, recreation and trails. Increase public awareness about the unique assets of Lebanon County. Make this a major initiative with a state-of-the-art website, newsletters, and a direct mail list for both postal and e-mail contacts.
9. Document the benefits of parks, recreation, greenways and trails. Advertise these benefits to key stakeholders, the public and private enterprise.
10. Explore opportunities to upgrade facilities and maximize use at major parks such as Coleman, South Hills, Stoevers Dam and Levitz.

Roles for Public and Private Partners

11. Role of Lebanon County: Focus county parks on historical, cultural and environmentally significant sites. The county would provide special use parks that offer unique facilities and opportunities that have a countywide appeal. Lebanon County would not establish a parks and recreation department but would establish a staff position within county government to oversee county related parks and recreation functions including coordination of county facilities,



funding, and primarily outreach and partnership development. The Parks and Recreation Coordinator would offer technical assistance, grant information and support, and serve to bring people and organizations together. The Coordinator could participate as a task force member for countywide major special events targeted at tourism. The county could consider the establishment of a county parks and open space program supported by financing for planning, land conservation, parks and trails.

12. Consideration should be given to establishing a Lebanon County Rail Trail Authority. The county could work in partnership with the Lebanon County Tourist Promotion Agency to configure and fund the organization. The further development of a countywide trail system requires dedicated paid staff. The demands of a comprehensive countywide trail system exceed the capacity of volunteers alone. However, volunteers would continue to play a key role in the planning, development and operation of trails.
13. Role of Municipalities: Municipalities would participate as partners in the countywide system by providing close-to-home recreation opportunities. Work toward having a parks and recreation advisory board in every municipality or multi-municipal region. Obtain 15 acres of parkland per thousand residents and/or at least one park preferably of at least 10 acres in each municipality.. Municipalities would develop their own parks, recreation and open space plans as an important step in creating a countywide parks and recreation system. Ideally, these plans would be done as multi-municipal plans, most preferably aligned with school district boundaries. Through zoning, municipalities should allow commercial recreation uses to develop in proximity to population centers and major recreation areas. This would include facilities and programs, in partnership with community organizations
14. Role of School Districts: School districts would continue to be the hub of community recreation with their indoor and outdoor facilities. They would participate and partner in developing the multi-municipal parks and recreation plans. For this reason, the Lebanon School District is recommended as a partner to the City of Lebanon for the completion of its peer study.
15. Role of Private Non-Profit Organizations: Non-profit service providers, including the Clarence T. Schock Foundation, Lebanon Valley Family YMCA, Levitz Park community sports organizations volunteers, and the Lebanon Valley Rail Trail, would continue to play a key role in recreation programs and collaborative maintenance of facilities.
16. Role of Private/Commercial Recreation Operations: Commercial recreation facilities would continue to offer specialized and advanced recreation services. These establishments are valuable supplements to a recreation system at essentially no cost to the taxpayer.



Countywide Mandatory Dedication of Parkland

As a county of the 5th class, Lebanon County can amend its county-wide Subdivision and Land Development Ordinance (SALDO) to include mandatory dedication of parkland or fees in-lieu of parkland (53 P.S. 10501, 10503(11)). By amending its SALDO to include mandatory dedication, such dedication will be required in all of Lebanon County's constituent municipalities except the ten that have adopted their own SALDOs. These ten municipalities are: Lebanon City, the Borough of Cornwall, and Annville, Bethel, Heidelberg, Jackson, North Cornwall, South Lebanon, South Londonderry and Union Townships. Mandatory dedication provisions are included in the local SALDOs, with the exceptions of Lebanon City and Heidelberg Township.

In order to achieve county-wide consistency, Lebanon County could suggest to these municipalities, when it sends the draft of its updated comprehensive plan, that they amend their SALDOs to adopt, by reference, the County's Mandatory Dedication provision (53 P.S. 10502 (c)). Mandatory dedication also requires a formally adopted recreation plan (53 P.S. 10503(11)(iv)). If these municipalities do not yet have recreation plans, they may be able to adopt the County's plan by reference as well. Determining this for certain will require further research.

The 16 municipalities that utilize the county SALDO include: the boroughs of Cleona, Jonestown, Mt. Gretna, Myerstown, Palmyra, and Richland and the townships of West Lebanon, Cold Spring, East Hanover, Millcreek, North Annville, North Lebanon, North Londonderry, South Annville, Swatara and West Cornwall. North Lebanon and Swatara Townships have supplemental development regulations for mandatory dedication. The remaining 14 municipalities would immediately benefit from mandatory dedication provisions in the county SALDO.

Management Approach

In order for Lebanon County to manage the mandatory dedication of parkland or fees-in-lieu of parkland, the County should delegate the responsibility for this function to a specific position. In order for this workload to be manageable, the process for the mandatory dedication of land should be as simple and streamlined as possible. This position would insure that the maximum amount of parkland meeting identified criteria is dedicated or that the fair value of the land is provided as a fee-in-lieu of dedication. In addition, it is essential that this position be responsible for overseeing the requirements to house the fees collected in a proper account and to see that the fees are expended within the required timeframe of three years. The rules and regulations for the process should be established by Lebanon County and approved by the County Solicitor.

Fee Guidelines

The Mandatory Dedication of Land Ordinance would be based upon this plan as the county's formally adopted recreation plan in accordance with the 53P.S. 10503 (11)(iv) requirement. The parkland standard would be 15 acres per thousand residents. The fee-in-lieu option is an alternative to parkland dedication. The approval of fee-in-lieu should consider the availability of land suitable for parks as well as the need for funds to improve existing parkland. The following guiding principles are recommended to maintain a simple fee setting process:

1. One fee should be established for Lebanon County. As land values across the county vary, fees based on region or multipliers to the county baseline fee may be used to address these variances in the real estate market. (see further discussion of options below)
2. The fee should be based upon the fair market value of the developed land.
3. The fee in lieu should be established and remain in place for two to three years. At the end of this time, the fees would be evaluated and updated in accordance with the current market values.

Potential Organizational Units for Fees-In-Lieu of the Mandatory Dedication of Parkland

The following categories provide an organizing structure for formulating fees-in-lieu of the dedication of parkland:

1. Individual Municipality – Setting fees by municipality is the traditional approach. However, this is typically done when a municipality has its own Mandatory Dedication of Land Ordinance. Lebanon County could be managing the fees-in-lieu of dedication for as many as 16 municipalities. Setting fees by municipality would be complex and inconsistent with a regional approach.
2. Countywide – Establishing one fee for all of Lebanon County would result in a fee that would be so generic as to not fit any area or community in particular. One fee might be too high for some places such as slow growth/no growth areas and too low in other areas where development is fast-paced.
3. Multi-municipal regions in relation to the path of growth – Since development pressures influence the market value of land, the rate of growth could be an organizing basis for sub-county regions. Since this plan is recommending school district based planning areas, consideration could be given to using these planning regions as the basis for fees: one fee per developed lot or dwelling unit applicable to the school district as a whole. The Comprehensive Plan identifies three types of growth for its six planning regions: four regions in the path of growth, one slow growth area, and one stabilizing area. The districts, their municipalities and types of growth areas are:
 - Path of Growth Areas:
 1. Western Path impacting the Palmyra area. Including North Londonderry, South Londonderry, and the Borough of Palmyra, or the Palmyra Area School District.
 2. Expansion of the greater Lebanon area impacting municipalities including North Lebanon, South Lebanon, North Cornwall, West Cornwall, Mt. Gretna, and Cornwall, or the Cornwall–Lebanon School District.
 3. Eastern Path impacting eastern municipalities, including Jackson, Myerstown, Richland, Millcreek and Heidelberg, or the ELCO School District region.
 4. I-81/I-78 corridor impacting northern municipalities including Bethel, Cold Spring, East Hanover, Swatara, Union and Jonestown, or the Northern Lebanon School District.

- Slow Growth Area:
 1. Annville-Cleona School District region of Annville, Cleona, North Annville and South Annville, though sewer extensions and anticipated development will result in several hundred new homes and residents in South Annville Township over the next 10-20 years.
- Stabilizing Area
 1. Lebanon School district region comprising the City of Lebanon and West Lebanon.

Analysis of Potential Organizational Units for Fees-In-Lieu of the Mandatory Dedication of Parkland

A feasibility evaluation of the above listed options yielded the following conclusions:

1. Setting fees by individual municipality is too cumbersome and would likely generate a workload beyond county staffing capacity.
2. Setting one countywide fee would be fraught with inequity for this number of municipalities with varying factors affecting real estate values.
3. Setting fees by school district and type of growth has merits for consideration, since there is a correlation between rate of growth and the school district region:
 - The fee basis would be consistent with this plan and the organizing structure for parks, recreation, open space and greenways.
 - The fees could be more equitably set based on more accurate market values of a specific sub-region of the county.
 - The school district boundaries would also provide the geographic service area for distribution of fees starting with the municipality in which the fees were generated as the first priority followed by other areas within the district. Consideration could be given to setting planning areas within the district composed of each municipality and then an overlay district for the school district as a whole in which large community or regional parks could be located or fees used for recreation facilities.
 - A total of six fees would need to be set. This is a manageable number for Lebanon County to oversee.

Recommendation

The preferred basis for the fee-in-lieu of mandatory dedication structure is by school district, requiring six fee structures to be established. This could be developed as a base fee with a multiplier for each school district region for simplicity.

Interrelationships of Open Space, Greenways and Recreation

Natural Resources

The Commonwealth of Pennsylvania has recently identified parks and recreation as a key to the future protection of the state's natural resources.

Our future quality of life depends on our ability to understand, appreciate and enjoy Pennsylvania's natural bounties. We simply cannot afford to lose our connection with the outdoors - a connection that is part of our rich tradition and provides the balance vital for a prosperous future. Disturbingly, trends indicate that the bond between the citizens of the Commonwealth and our precious natural resources is weakening.

Governor Edward Rendell, 2007

Green spaces protect habitat, bio-diversity and ecological integrity. They help to improve air quality by removing pollutants from the air. Outdoor recreation is one of the best approaches to fostering environmental education and a stewardship ethic among citizens, which are a key to long-term sustainability.

Housing

Increases in the price of residential property are positively affected by the quality of recreation facilities and negatively affected by the distance from them. Proximity to open space improves the visual environment and consequently the quality of life. Many studies have revealed that property value increases where property is located beside or near open spaces, traditional parks and greenways. Property values are highest near greenways that emphasize natural open space (not highly developed facilities) and that have effective maintenance and security. In urban areas, open space, greenways and parks help residential areas by providing a place to retreat from the noise, heat pollution and stress of compact living. They also provide relaxing places of shade and have a cooling effect on the urban environment. Parks and open space are essential features of desirable housing.



Transportation

Trails are typically viewed primarily as recreation facilities, but when planned correctly, and developed with the needs of commuters in mind, trails can serve as transportation corridors for commuters traveling to and from work, school, or other destinations. A comprehensive network of county and local municipal trails that connects residential areas with community destinations offers opportunities for alternative modes of commuter transportation. Promoting bicycle and pedestrian commuting has many positive outcomes including reducing traffic congestion, improving air quality, contributing to energy conservation, improving the environment, and promoting the fitness, wellness and overall physical health of participants.

Community Services

Recreation, open space and greenways are integral to overall community services. They help to improve the quality of life by reducing anti-social behavior, building strong family bonds, creating a sense of community and contributing to human development. By providing positive experiences throughout a lifetime, recreation helps to deter the associated costs of the justice system, incarceration, counseling, youth and family services and so on. Parks and recreation help to keep citizens fit and healthy. The U.S. Surgeon General has named municipal parks and recreation as a powerful weapon in the fight against obesity and the lack of physical activity, the number one public health issue in America today. Open space, greenways and recreation contribute to mental health by reducing stress isolation and loneliness. They are often the catalysts for building strong self-sufficient communities where trail groups, art guilds, sports and fitness leagues, volunteer organizations, and park stewards are a part of the fabric of daily life.

Economic Development

Recreation, greenways and open space are significant economic generators. They increase property values. For example, property values near open space and golf courses increase at higher rates than properties with other kinds of views. They are also prime economic development and relocation magnets. Having lots of things to do in a community as well as trails, parks and recreation facilities helps to attract businesses and prevent the “brain drain”, the loss of young wage earners to other areas of the country. Recreation, sports and physical fitness activities, trails and the great outdoors help to improve work performance through increased productivity, decreased absenteeism, lower staff turnover and reduced on-the-job accidents.

Investment in parks, recreation, trails, sports and open space yields large economic returns in the form of money generated by events, capital development, and provision of ongoing services. In 2003, Pennsylvanians spent over \$11.5 billion on recreational activities such as hunting, fishing, sports participation, skating, winter sports and so on. Recreation revenues in Lebanon County totaled about \$103 million.

How much is a trail worth?

The York Heritage Rail Trail generates over \$10 million annually in the York County economy.

Outdoor Recreation, Historic and Cultural Resources & Tourism

Tourism is the second leading industry in Pennsylvania, after agriculture. Heritage tourism and outdoor recreation travel represent a significant portion of the Commonwealth’s tourism. Nearly one out of every four tourism dollars is spent for outdoor recreation travel. Outdoor recreation tourism is growing at twice the rate of the total traveler expenditures in



Pennsylvania. This is good news for Lebanon County with its plethora of municipal, county, state and private parks and environmental lands.

Heritage tourism, also in a growth mode, includes a mix of historic and cultural activities and attractions often in the outdoors. This trend is likely to continue as heritage tourists increasingly tend to be older and more affluent. Projections suggest that more older people will be engaging in – and spending their recreational dollars on – heritage, cultural and outdoor recreation tourism in the future.

The Action Plan

The Action Plan identifies actions for the county to undertake or to support to establish a true countywide park, recreation, greenway and trail system. The actions are designed to build upon the strengths identified in the previous section, to address the county's weaknesses, to capitalize on its opportunities, and to prepare a defense against the threats. It casts the vision and framework needed to organize and initiate fruitful investments. More detailed planning will be needed to



serve the development of the system long term – perhaps through a plan update after staff and funding are in place and local priorities are established.

The action plan recognizes the limited resources available within this relatively small county and recommends strong partnerships with other public, non-profit, and private organizations serving residents' recreational needs. The Action Plan avoids extravagant and grandiose initiatives that would be beyond the reach of Lebanon County and its partners by 2020. While the recommendations may seem numerous, many are indeed interrelated, e.g. funding action items detail the means to fund planning, development and management action items. In other cases, recommendations are cumulative, meaning one action item build the capacity and structure needed for later ones, all leading toward the goal. Initial priorities for implementation are listed in *Chapter 15, Implementation*.

Vision

By the year 2020, Lebanon County will have a first class countywide system of parks, recreation and conservation areas all linked through a connected system of trails and greenways. Combined, the system will be known far and wide as a model greenscapes system. The major state & regional parks, game lands, and forests serve as anchors that are linked to close-to-home parks through trails and greenways. Collaboration will continue to promote successful regional efforts. Collectively, state, county, regional, municipal and private recreation and conservation areas will meet the needs of people who live, work and visit here. The plentiful recreation opportunities will help to attract and retain citizens and businesses. Young citizens and new enterprises will see Lebanon County as a great place in which to work, play, raise a family and enjoy life. Tourists will regard Lebanon County as a top destination in which to enjoy the great outdoors, scenic beauty, history and culture, as well as the plentiful recreation events and activities.

Goal and Objectives

- 1. Establish a countywide system of parks and recreation areas comprised of state, county, regional, municipal, and private lands for present and future resident recreation.**
 - A. Acquire and develop adequate park land to serve residents.
 - B. Promote and facilitate the adoption of mandatory dedication ordinances that require the dedication of parkland or a fee-in-lieu based on the fair market value of land.
 - C. Update and renovate parks, recreation facilities, and trails to meet accepted standards and residents' recreation facility needs.
 - D. Integrate parks, recreation facilities, greenways, and trail planning into county and community planning.

- 2. Develop a countywide network of greenways and trails to create a connected county.**
 - A. Expand and enhance existing greenways and recreation trails.
 - B. Facilitate local planning for parks, recreation, greenways, trails and open space conservation.
 - C. Grow the greenway network through the local development process.
 - D. Work to raise public awareness about the benefits of greenways and trails throughout the county.

- 3. Facilitate and promote a wide range of recreation opportunities to people of all ages who live in, work in, and visit Lebanon County.**
 - A. Adopt the position that Lebanon County will not directly provide recreation programs and services but will facilitate and support the efforts of other providers of services.
 - B. Focus and strengthen efforts for providing close-to-home recreation.
 - C. Focus and strengthen efforts for providing resource based recreation.
 - D. Focus and strengthen efforts for promoting recreational areas within the county's tourism market.

- 4. Plan and manage parks, recreation and open space in Lebanon County through partnerships, collaboration for the greatest public benefit and responsible uses of recreation resources.**
 - A. Establish an organizational structure for parks and recreation planning and assistance at the county level.
 - B. Create a Lebanon County Trail Authority.
 - C. Reconstitute the Peer Study regarding the City of Lebanon parks and recreation management.
 - D. Follow the recommendations of the Peer Study of the Clarence Shock Environmental Education Center.

5. **Invest in parks and recreation to enhance the health, safety, and welfare of the citizens and to contribute to the economic vitality of Lebanon County.**
 - A. Provide adequate financial support for Lebanon County to facilitate partnership development, outreach and technical assistance for parks, recreation, and trails.
 - B. Explore the establishment of a capital improvement program based upon decisions made for implementing this plan.

Recommendations

Goal 1:	Establish a countywide system of parks and recreation areas comprised of state, county, regional, municipal, and private parks and recreation areas for present and future generations.
Objective 1A:	Acquire and develop adequate park land to serve residents.
Action 1A1:	By adoption of this plan, establish a goal of a minimum of 15 acres of parkland per 1,000 residents of Lebanon County.
Intended Outcome:	Formalize policy and establish methods to acquire parkland in proportion to countywide and local recreation needs.
Time Horizon:	Upon adoption
Lead Partners:	Lebanon County Commissioners; Municipalities
Support Partners:	Recreation Service Providers; Lebanon County Planning Department
Funding Sources:	County and municipal funds and state grants from Pennsylvania Department of Community and Economic Development (DCED) or Department of Conservation and Natural Resources (DCNR) for plan and ordinances updates to establish policy and incorporate mandatory dedication and fee-in-lieu provisions

Action 1A2:	Support municipal park and trail acquisition and development efforts. Target having a park in every community.
Intended Outcome:	Acquire parkland for current and future recreation needs.
Time Horizon:	Ongoing
Lead Partners:	Municipalities
Support Partners:	Lebanon County Commissioners (letters of support, local funding program); Lebanon County Planning Department (grant assistance)
Funding Sources:	Lebanon County Growing Greener allocation; DCNR Community Conservation Partnership Program (C2P2); Non-profit sector contributions (cash and in-kind services)
Action 1A3:	Work in partnership with school districts and municipalities to develop regional parks for active recreation in conjunction with school campuses.
Intended Outcome:	Build on the past success of school sites as recreation hubs to develop larger, more diverse recreation destinations.
Time Horizon:	2008-2009 comprehensive plan implementation workshop with school district representatives; on-going outreach and coordination
Lead Partners:	School Districts; Municipalities within each district
Support Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Funding Sources:	School Districts; County funds (staff assistance); Municipalities
Action 1A4:	Target acquisition of special use parks that provide unique facilities that will benefit citizens countywide. Tie these special use facilities to county tourism initiatives.
Intended Outcome:	Continue to provide special use facilities, e.g. skateboard park, aquatic facilities, spray pads, tournament quality athletic facility, public garden, ice rinks, etc.
Time Horizon:	Ongoing review of acquisition opportunities
Lead Partners:	Lebanon County Commissioners; Lebanon County Park and Recreation Advisory Committee (see Action 4A2); Municipalities
Support Partners:	Historical Society; Governor Dick Board of Directors; Other private sector partners involved in site/facility management
Funding Sources:	DCNR-Community Conservation Partnership Program (C2P2); Private land donations/easements

Action 1A5:	Support acquisition of land or easements along streams to provide public access and resource protection.
Intended Outcome:	Increase access to public waterways for water-based recreation.
Time Horizon:	Ongoing review of acquisition opportunities
Lead Partners:	Watershed organizations; Conservation District; DCNR; PA Fish and Boat Commission; Lebanon Valley Conservancy
Support Partners:	Lebanon County Commissioners; Developers
Funding Sources:	DCNR Community Conservation Partnership Program (C2P2); Private land donations/easements; Mandatory dedication
Objective 1B:	Promote and facilitate the adoption of mandatory dedication ordinances that require the dedication of parkland or a fee-in-lieu based on the fair market value of land.
Action 1B1:	Develop and distribute a model mandatory dedication of land ordinance that can be adopted into local and county subdivision and land development ordinances.
Intended Outcome:	Increase use of mandatory dedication as a means to acquire parkland for future residents as development occurs.
Time Horizon:	2008-2009 or as an implementation of up-to-date municipal comprehensive plans
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	County funds (staff assistance)
Action 1B2:	Develop county-municipal agreements for Lebanon County to manage the Mandatory Dedication of Parkland Ordinance for the municipalities without such an ordinance in place.
Intended Outcome:	Provide the means to carry out a Mandatory Dedication of Parkland Ordinance for municipalities countywide.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	County funds (staff assistance)

Action 1B3:	Review mandatory dedication fee schedules every two to three years to align fee-in-lieu requirements with the fair market value of land.
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Intended Outcome: Maintain mandatory dedication provisions that will generate fees in proportion to land and development value.

Time Horizon: Ongoing

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities

Funding Sources: County funds (staff assistance)

Objective C:	Update and renovate parks, recreation facilities, and trails to meet accepted standards and residents' recreation facility needs.
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Action 1C1:	Support municipal park and trail improvements for access and safety.
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Intended Outcome: Bring facilities into compliance with ADA and Consumer Product Safety Commission standards.

Time Horizon: 2008-2009 and on-going

Lead Partners: Municipalities

Support Partners: Lebanon County Planning Department

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); Private land donations/easements; Community Organizations; County funds

Action 1C2:	Support municipal park and trail master planning and associated improvements to update facilities.
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Intended Outcome: Renovate and expand existing facilities to meet contemporary recreational needs.

Time Horizon: 2008-2009 and ongoing

Lead Partners: Municipalities

Support Partners: Lebanon County Planning Department

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); Private land donations/easements; Community Organizations; County funds

Objective 1D: Integrate parks, recreation facilities, greenways, and trail planning into county and community planning.

Action 1D1: Encourage municipalities to develop local recreation and open space plans, preferably as multi-municipal planning regions.

Intended Outcome: Establish local recreation needs and priorities.

Time Horizon: 2012-2013 and on-going

Lead Partners: Lebanon County Planning Department; Municipalities

Support Partners: School Districts

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); DCED Land Use Planning and Technical Assistance Program (LUPTAP); County funds

Action 1D2: Include review of the county open space, greenways and recreation plan in the planning department's SALDO review process.

Intended Outcome: Advance the development of the countywide system of parkland, greenways and trails through provisions of the development process.

Time Horizon: Upon adoption

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities; Developers

Funding Sources: County funds (staff assistance)

Goal 2: Develop a countywide network of greenways and trails to create a connected county.

Objective 2A: Expand and enhance existing greenways and recreation trails.

Action 2A1: Implement the recommendations of the feasibility study for the Lebanon Valley Rail Trail extension from the City of Lebanon to Swatara State Park.

Intended Outcome: Establish a north-south recreation “arterial” as the spine to the county’s trail network.

Time Horizon: 2008 and ongoing

Lead Partners: Lebanon Valley Rails-to-Trails; Trail Authority

Support Partners: Lebanon County Planning Department; Municipalities; DCNR; City of Lebanon School District; LEBCO MPO

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); PennDOT Transportation Enhancement; PennDOT Hometown Streets / Safe Routes to School Program

Action 2A2: Connect the Whitmoyer Trail (Quittie Trail) and the Coleman Park Trail to the Lebanon Valley Rail Trail, west of the City of Lebanon, as a Union Canal Connector Trail or Greenway.

Intended Outcome: Establish local links to connect the City of Lebanon to the county trail spine.

Time Horizon: 2010

Lead Partners: Lebanon Valley Rails-to-Trails; West Lebanon Township; City of Lebanon

Support Partners: Lebanon County Planning Department; Coleman Park Board of Trustees

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); PennDOT Transportation Enhancement; PennDOT Hometown Streets / Safe Routes to School Program

Action 2A3:	Link the Clarence Shock Environmental Education Center to the Lebanon Valley Rail Trail.
Intended Outcome:	Establish a local link to the county trail spine.
Time Horizon:	2008
Lead Partners:	Lebanon Valley Rails-to-Trails; Governor Dick (Board of Directors)
Support Partners:	Lebanon County Planning Department; Municipalities; PA State Game Lands
Funding Sources:	DCNR Community Conservation Partnership Program (C2P2)
Action 2A4:	Work collaboratively with the Kittatinny Ridge, Highlands, and Tulpehocken Greenways initiatives to expand these regional greenways in Lebanon County.
Intended Outcome:	Conservation and interpretation of resources along these designated greenways.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; State Agencies; Conservancy groups; Adjacent Counties
Funding Sources:	County funds (staff assistance)
Action 2A5:	Assess the feasibility of a Union Canal trail from Union Canal Tunnel Park to the Swatara Creek. Begin by identifying any unclaimed parcels of the Union Canal right-of-way and claim for the park or trail.
Intended Outcome:	Expand the Union Canal Tunnel Park.
Time Horizon:	2010-2011
Lead Partners:	Lebanon Valley Conservancy; Lebanon County Historical Society; Swatara Creek Watershed Association
Support Partners:	Lebanon Valley Rails-to-Trails; Lebanon County Planning Department; Municipalities
Funding Sources:	DCNR Community Conservation Partnership Program (C2P2)

Objective 2B:	Facilitate local planning for parks, recreation, greenways, trails and open space conservation.
Action 2B1:	Develop a project fact sheet that highlights the South Lebanon Township trail as a model for municipal greenway and trail master planning.
Intended Outcome:	Re-use a process that has been successful as a “how to” local example to other communities.
Time Horizon:	2010-2011
Lead Partners:	Municipalities
Support Partners:	South Lebanon Township (as peer); LEBCO MPO
Funding Sources:	DCNR Community Conservation Partnership Program (C2P2); PennDOT Transportation Enhancement; PennDOT Hometown Streets / Safe Routes to School Program
Action 2B2:	Consider applying for a block grant from PADCNr to undertake multi-municipal park, recreation and open space plans.
Intended Outcome:	Create an incentive for local planning.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Municipalities; School Districts; Trail organizations; Lebanon Valley Conservancy
Funding Sources:	DCNR; Potential county and municipal match (cash or in-kind services)
Action 2B3:	Develop the multi-municipal planning program formed with respect to school districts as planning areas and incorporating school districts into the planning process.
Intended Outcome:	Use block grant and other funds to provide a funding program prioritized for regional planning.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	Potential Block grant funding through PADCNr to be matched with county and municipal sources

Action 2B4: Encourage municipalities to create community-wide greenway networks and connect to the county identified greenways and trails. Focus on encouraging multi-municipal greenway and trail planning.

Intended Outcome: Improve connectedness of the recreation system and extend greenways and trails throughout the county to local destinations.

Time Horizon: 2012-2013 and ongoing

Lead Partners: Lebanon County Commissioners; Lebanon County Planning Department

Support Partners: Municipalities; Trail Authority; Lebanon Valley Conservancy; Watershed Associations

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); PennDOT Transportation Enhancement; PennDOT Hometown Streets / Safe Routes to School Program

Action 2B5: Determine priorities for greenway planning and implementation.

Intended Outcome: Prepare and communicate priorities to raise public support and acquire funding.

Time Horizon: 2012-2013 in conjunction with greenway planning studies

Lead Partners: Municipalities; Lebanon Valley Conservancy

Support Partners: Lebanon County Planning Department

Funding Sources: DCNR Community Conservation Partnership Program (C2P2)

Action 2B6: Set goals for accomplishing an identified length of greenway segment annually (e.g., a mile a year, an identified link, etc.) or other progress milestone.

Intended Outcome: Raise awareness for intent to develop the system over time and ultimately report that interim and final goals were achieved.

Time Horizon: 2012-2013 following municipal greenway and trail planning

Lead Partners: Lebanon Valley Conservancy

Support Partners: Lebanon County Commissioners; Lebanon County Planning Department; Municipalities; Watershed Associations

Funding Sources: DCNR Community Conservation Partnership Program (C2P2) (via greenways plan implementation)

Action 2B7:	Continue to support greenway partners.
Intended Outcome:	Support others in their efforts to conserve and promote greenways.
Time Horizon:	Ongoing
Lead Partners:	Lebanon Valley Conservancy and the Berks County Conservancy
Support Partners:	Lebanon County Planning Department; Lebanon County Conservation District; Municipalities; Watershed Associations
Funding Sources:	County funds (for policy decision and staff assistance)
Action 2B8:	Acquire key parcels along trails and greenways to provide destinations, points of interest, trail access, etc.
Intended Outcome:	Interpretation of trailside resources and convenience for trail users.
Time Horizon:	2008-2009 for greenways and trails, as of 2007, 2014-2015 following local greenway and trail planning and ongoing
Lead Partners:	Lebanon Valley Conservancy; Lebanon Valley Rails to Trails
Support Partners:	Lebanon County Conservation District; Preservation Trust of Lebanon County Commissioners; Lebanon County Historical Society
Funding Sources:	PennDOT; DCNR; County funds; Mandatory dedication funds; Private donations
Action 2B9:	Explore and evaluate the use of the official map as a means to identify potential acquisition for county and municipal purposes.(Land Use Plan, Goal 1, Objective A, Action Item 6)
Intended Outcome:	Identify target parcels or rights-of-way for acquisition; establish a "right-of-first refusal" option for lands that become available or are proposed for development.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Planning Department; LEBCO MPO; Municipalities; Municipal authorities
Support Partners:	None
Funding Sources:	Municipal budgets; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP)

Objective 2C: Grow the greenway network through the local development process.

Action 2C1: Encourage the incorporation of conservation strategies into plans and ordinances and using conservation tools.

Intended Outcome: Advance the conservation of greenways by utilizing natural or soft engineering solutions to stormwater management facilities

Time Horizon: 2010-2011 for incorporation into county subdivision and land development ordinance

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities; Developers; Lebanon County Conservation District; Lebanon Valley Conservancy

Funding Sources: County funds (staff assistance)

Action 2C2: Develop driving tours based on countywide themes, such as agriculture and heritage.

Intended Outcome: Provide a mechanism for interpreting widely dispersed but related cultural resources.

Time Horizon: 2010-2011 as in implementation of the historic preservation plan

Lead Partners: Lebanon County Historical Society

Support Partners: Lebanon County Tourist Promotion Agency; PA Department of Agriculture; Lebanon Valley Chamber of Commerce; LEBCO MPO

Funding Sources: Department of Agriculture; DCED; Lebanon County Chamber of Commerce; PennDOT; DCNR

Objective 2D: **Work to raise public awareness about the benefits of greenways and trails throughout the county.**

Action 2D1: **Work cooperatively with conservation partners to promote the ecological benefits of greenways.**

Intended Outcome: Increase understanding of the need and benefits of natural resource conservation.

Time Horizon: Ongoing

Lead Partners: Lebanon Valley Conservancy; Berks County Conservancy; Watershed Associations

Support Partners: Conservation District; School Districts; Lebanon County Planning Department

Funding Sources: County funds (staff assistance)

Action 2D2: **Work cooperatively with health and wellness partners to promote fitness and wellness benefits.**

Intended Outcome: Increase understanding of the benefits of outdoor recreational activity.

Time Horizon: Ongoing

Lead Partners: Health care community; Lebanon Valley YMCA

Support Partners: School Districts; Pennsylvania Advocates for Nutrition and Activity (PANA)

Funding Sources: Local partner contributions; PANA

Goal 3:	Facilitate and promote a wide range of recreation opportunities to people of all ages who live, work, and visit Lebanon County.
Objective 3A:	Adopt the position that Lebanon County will not directly provide recreation programs and services but will facilitate and support the efforts of other providers of services.
Action 3A1:	Define and publicize the county's position.
Intended Outcome:	Focus the county's financial support toward special use facilities and its advocacy support toward efforts consistent with the plan.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Commissioners
Support Partners:	N/A
Funding Sources:	County funds (publications and staff outreach)
Objective 3B:	Focus and strengthen efforts for providing close-to-home recreation.
Action 3B1:	Facilitate close-to-home recreation opportunities by assisting municipalities and school districts in planning parks and recreation systems and services.
Intended Outcome:	Increase close-to-home recreation facilities and services.
Time Horizon:	2008 and ongoing
Lead Partners:	Municipalities; School Districts
Support Partners:	Lebanon County Planning Department; Lebanon Valley YMCA
Funding Sources:	Public and private resources including taxes, grants, gifts, bequests, partnerships, and sponsorships.

Action 3B2: Provide technical assistance to the municipalities regarding parks, recreation facilities, services, and grants.	
Intended Outcome:	Increase the quality of recreation facilities and services developed in the county.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; DCNR; School Districts
Funding Sources:	DCNR Community Conservation Partnership Program (C2P2); PRPS (RecTAP); County funds (staff assistance)
Action 3B3: Create a program to provide outreach to municipalities and school districts regarding funding, grant rounds, and development of grant applications to acquire parkland and develop recreation facilities to be used for close-to-home recreation.	
Intended Outcome:	Increase awareness for available local and state assistance for developing recreation systems and programs.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	County funds (staff assistance for grant application and administration)
Action 3B4: Provide information about grants for programs such as Council on the Arts grants.	
Intended Outcome:	Increase awareness for available local and state assistance for developing diverse recreation programs, including arts and crafts.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	County funds (staff assistance)

Action 3B5: Serve as a resource to inform municipalities about recreation trends, workshops, seminars, websites, and professional organizations that local organizations can tap into in planning and delivering services.

Intended Outcome: Increase awareness for available local and state assistance for developing recreation systems and programs.

Time Horizon: 2008 and ongoing

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities; School Districts; PRPS; DCNR

Funding Sources: DCNR Community Conservation Partnership Program (C2P2); County funds (staff assistance)

Action 3B6: Provide technical assistance to municipalities on trail planning, development funding and coordination with land development.

Intended Outcome: Increase awareness for available local and state assistance for developing local trail systems and connecting to the county trail system.

Time Horizon: 2008 and ongoing

Lead Partners: Lebanon County Planning Department; LEBCO MPO

Support Partners: Lebanon Valley Rails-to-Trails; Municipalities; School Districts

Funding Sources: County funds (staff assistance for grant application and administration)

Objective 3C:	Focus and strengthen efforts for providing resource based recreation.
Action 3C1:	Brand Lebanon County as a prime location for recreation in the "Great Outdoors" with its more than 30,000 acres of recreation lands. Create an advertising and public awareness campaign to make people aware of these resources, their significance and the recreational opportunities within.
Intended Outcome:	Increase public appreciation for natural resources and public support for conservation of natural resources, open space and parkland.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department; Clarence T. Schock Environmental Education Center
Support Partners:	Lebanon County Conservation District; Lebanon County Tourist Promotion Agency; PA State Game Commission; PA Fish and Boat Commission; DEP; DCNR; DCED
Funding Sources:	County tourism funds Potential school district support in form of technical assistance and programs
Action 3C2:	Support efforts to implement the Swatara State Park Master Plan.
Intended Outcome:	Complete development of the state park as planned.
Time Horizon:	2008 and ongoing
Lead Partners:	DCNR
Support Partners:	Lebanon County Planning Department; Municipalities; Lebanon County Tourist Promotion Agency
Funding Sources:	State grant funding under PA DCNR; State Park Budget funds; Private fundraising initiatives for targeted facilities; Volunteer labor and equipment.

Action 3C3:	Strive to keep public access for water based recreation through effective planning, easements and acquisition.
Intended Outcome:	Provide and protect access to waterways for recreation enthusiasts.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	Watershed Associations; Lebanon Valley Conservancy; PA Fish and Boat Commission; DCNR; Developers
Funding Sources:	Department of Conservation and Natural Resources; PA Fish and Boat Commission; PA Game Commission
Action 3C4:	Provide information to landowners on the recreational use of land immunity laws that protect landowners who allow access to their lands for recreational purposes.
Intended Outcome:	Educate landowners to increase access and easements on private lands for recreational uses.
Time Horizon:	2008 and ongoing
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Conservancy; Lebanon County Conservation District; Lebanon Valley Rails-to-Trails
Support Partners:	Municipalities
Funding Sources:	Grants; Partner in-kind services and activities

Objective 3D:	Focus and strengthen efforts for promoting recreational areas within the county’s tourism market.
Action 3D1:	Integrate state and county park and recreation facilities into county tourism promotion. This could include the state parks, game lands, fish & boat areas, fishing, hunting and trails.
Intended Outcome:	Provide information on recreational destinations to travelers.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Tourist Promotion Agency
Support Partners:	Private sector tourism related businesses; Volunteer groups that serve parks and trails; Realtors
Funding Sources:	Tourism budget
Action 3D2:	Create a mechanism to track the value of recreation facilities in terms of economic development impact.
Intended Outcome:	Establish the connection between recreation and economic development.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department; Lebanon Valley Economic Development Corporation; Lebanon Valley Chamber of Commerce; private contractors to conduct research on site at facilities such as trails
Support Partners:	Lebanon County Tourist Promotion Agency; Realtors; Business owners
Funding Sources:	Funds from all partners (staff assistance for development)
Action 3D3:	Designate a staff person to work with the Lebanon County Tourist Promotion Agency to increase the role of county recreation and trails in tourism.
Intended Outcome:	Provide timely accurate information to the Lebanon County Tourist Promotion Agency.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Tourist Promotion Agency
Support Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Funding Sources:	County funds (staff assistance)

Action 3D4:	Include the Clarence T. Schock Environmental Education Center and trails in tourism once they are established to the level that they can be promoted.
Intended Outcome:	Showcase the environmental resources through tourism.
Time Horizon:	2008 and ongoing
Lead Partners:	Governor Dick Board of Directors; Lebanon Valley Rails-to-Trails
Support Partners:	Lebanon County Tourist Promotion Agency
Funding Sources:	Tourism budget
Action 3D5:	Review peer counties for their promotion of recreation destinations through tourism.
Intended Outcome:	Recognize that facilities need to be premiere in design, management, and programming in order to be promoted and used to attract tourists.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Tourist Promotion Agency
Support Partners:	Lebanon County Planning Department; Park and trail managers; Park and trail friends groups
Funding Sources:	County funds; DCNR Peer Programs

Goal 4:	Plan and manage parks, recreation and open space in Lebanon County through partnerships and collaboration for the greatest public benefit and responsible use of recreation resources.
Objective 4A:	Establish an organizational structure and responsibilities for parks and recreation planning and assistance at the county level.
Action 4A1:	Designate a county recreation planner. Designate that the chief role of the county recreation planner regarding county parks and recreation is planning, outreach and partnership development.
Intended Outcome:	<p>Increase recreation, greenway and open space planning, outreach and partnership development at the county level.</p> <p>Assign the following responsibilities to the county parks and recreation planner:</p> <ul style="list-style-type: none"> • Outreach to the municipalities regarding the development of parks and recreation systems. • Outreach to school districts as key stakeholders in parks and recreation. • Advise municipalities regarding grant applications, funding cycles and technical assistance in developing projects and grant applications. • Provide technical assistance regarding local parks and recreation planning, ordinances, mandatory dedication of parkland, etc. • Serve as the liaison to the Lebanon County Parks, Recreation and Trails Advisory Committee, to be established as part of the implementation of this plan. • Develop planning guidelines for municipal parks and recreation plans and foster regional planning. • Administer county parks, recreation and trail grants. • Develop workshops or seminars in partnership with other entities to build capacity for recreation throughout Lebanon County. • Collaborate with the Lebanon County Tourist Promotion Agency on tourism.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	N/A
Funding Sources:	<p>Two options: 1) County funds for a new staff position in the planning department or 2) a DCNR Circuit Rider Position, initially funded by DCNR and the county for the first four years. Thereafter the position would be supported by a mix of public and private sources through taxes, fees, charges, leases, sales, permits, partnerships, sponsorships grants, gifts and bequests. The first option may also be funded by multiple sources over time.</p>

Action 4A2:	Create a Lebanon County Parks, Recreation and Trails Advisory Committee.
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Intended Outcome:	Include representatives of municipalities, school districts, Lebanon Valley College, Lebanon County Tourist Promotion Agency, businesses, the arts, sports, trails, environmental interests, state parks/forests/game lands, geographically well-distributed to advocate for the county as a whole. Designate a county commissioner as a liaison to the Parks and Recreation Advisory Committee. Establish a mission, roles and responsibilities for the Committee. Develop operating guidelines.
Time Horizon:	Build advocacy for the development of the recreation opportunities. 2010
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Stakeholders including but not limited to those listed above
Funding Sources:	County funds (staff assistance)

Action 4A3:	Develop and maintain a lively, current website as the "go to" resource for information about parks and recreation in Lebanon County. Establish links between this site and the tourism website. Use a webmaster that has state-of-the-art design and operation expertise.
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Intended Outcome:	Increase public awareness of recreation opportunities.
Time Horizon:	2008-2010
Lead Partners:	Lebanon County initially to be transferred to the Lebanon County Trail Authority
Support Partners:	Lebanon County Tourist Promotion Agency
Funding Sources:	Lebanon County (staff assistance); Tourism budget

Objective 4B: Create a Lebanon County Trail Authority.

Action 4B1: Create a Lebanon County Trail Authority. Use the York County Rail Trail Authority as a model.

Intended Outcome: Organization of an administrative board for trail initiatives to further the initiatives of trail advocates and increase funding opportunities.

Time Horizon: 2008

Lead Partners: Lebanon County Commissioners

Support Partners: Lebanon County Tourism Promotion Agency; Lebanon Valley Rails-to-Trails; Lebanon County Planning Department

Funding Sources: County funds (staff assistance)

Action 4B2: Establish the position of the Lebanon County Trail Coordinator. If it is not realistic to create both a Recreation Planner and a Trail Coordinator position, the county could consider combining these responsibilities into one position.

Intended Outcome: Formally establish a point person for trail planning, coordination and outreach. Charge the Coordinator with planning the countywide trail system, securing funds through grants and fundraising, providing technical assistance to municipalities and trail groups for the further planning and development of trails, negotiating agreements with municipalities and private partners for trail maintenance and management, serving as the coordinator to the Trail Advisory Committee, and promoting trails. Seek funding for this position from the hotel tax over a five to ten year time frame. This will provide the stability required to develop the system. The rationale for this request is that trails are an economic engine of tourism that generate visitation and overnight stays.

Time Horizon: 2010-2011

Lead Partners: Lebanon County Trail Authority

Support Partners: Lebanon County Tourism Promotion Agency; Lebanon Valley Rails-to-Trails; Lebanon County Planning Department; Local Municipalities and their recreation boards/committees; School Districts; other private recreation and trail organizations; PA DCNR (representing state parks)

Funding Sources: County; PA DCNR

Action 4B3:	Document the benefits of trails in Lebanon County as well as provide materials to showcase successful trails as educational materials for the public.
Intended Outcome:	Increase public appreciation of trails, use of trails and support for trail development.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Trail Authority
Support Partners:	Lebanon County Tourism Promotion Agency; Lebanon Valley College; Private marketing company; LVRT; HACC
Funding Sources:	County; PA DCNR
Action 4B4:	Establish a Lebanon County Trail Advisory Committee as an advisory and advocacy arm of the Trail Authority.
Intended Outcome:	Build advocacy for the development of trails through a committee that may more broadly represent citizen interests than the Authority alone.
Time Horizon:	2009
Lead Partners:	Lebanon County Trail Authority
Support Partners:	Lebanon County Commissioners; Lebanon County Planning Department; Lebanon Valley Rails-to-Trails
Funding Sources:	Trail Authority (staff time)

Objective 4C:	Reconstitute the Peer Study regarding City of Lebanon parks and recreation management.
Action 4C1:	Restructure the parks and recreation management study to pair the City of Lebanon with the Lebanon School District rather than Lebanon County.
Intended Outcome:	Pair the city with the best partner for harnessing resources and addressing issues. The city and the school district have more resources and issues in common than the city and the county do regarding parks, recreation, programs, services, management, financing, and staffing. Use the Peer Study to determine how the city and the school district could develop a regional recreation, parks and trail system.
Time Horizon:	2008-2009
Lead Partners:	City of Lebanon
Support Partners:	Lebanon School District
Funding Sources:	DCNR Peer Program with match funded by the school district and the city (\$500 each)

Objective 4D:	Follow the recommendations of the Peer Study of the Clarence Shock Environmental Education Center.
Action 4D1:	Institute actions and policies regarding programs, staff, and funding as a management and program plan for the Environmental Education Center.
Intended Outcome:	Enhance programs and associated support to create a premiere environmental center.
Time Horizon:	2008-2009
Lead Partners:	Clarence T. Schock Foundation
Support Partners:	Lebanon County Commissioners; Lebanon County Conservation District
Funding Sources:	Clarence Schock Foundation and Lebanon County

Action 4D2: Grow the Environmental Education Center over time through a mix of public support and partnerships.

Intended Outcome: Expand support for the center.
Time Horizon: 2009 and ongoing
Lead Partners: Clarence T. Schock Foundation
Support Partners: Lebanon County Commissioners; Lebanon County Tourist Promotion Agency
Funding Sources: Clarence T. Schock Foundation; County; Fundraising; Fees and charges; Grants; Gifts and bequests; Partnerships and sponsorships

Goal 5: Invest in parks and recreation to enhance the health, safety, and welfare of the citizens and to contribute to the economic vitality of Lebanon County.

Objective 5A: Provide adequate financial support for Lebanon County to facilitate partnership development, outreach and technical assistance.

Action 5A1: Provide seed money to develop materials, workshops and so on for parks and recreation planning, outreach and development efforts.

Intended Outcome: Communication and education.
Time Horizon: 2009
Lead Partners: Lebanon County Commissioners; Lebanon County Planning Department
Support Partners: Municipalities; School Districts
Funding Sources: Public and private grants; County funding (for local match)

Action 5A2: Support the operational funding needs of the county park sites through a mix of tax funds, partnerships and non-tax funds.

Intended Outcome: Provide a basic level of support that could leverage partnerships and volunteerism to maintain quality recreation facilities and sites.
Time Horizon: 2008 and ongoing
Lead Partners: Lebanon County Commissioners
Support Partners: Park and trail friends groups
Funding Sources: Base line of county funds to be leveraged with a mix of other non-tax sources

Action 5A3:	Develop an impact statement to project future operating costs and funding sources before undertaking new county park projects. If sufficient funds are not available, decline the project.
Intended Outcome:	Consideration of long term impacts of new facilities prior to commitment.
Time Horizon:	2009
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Managers; Friends groups and others involved in facilities, trails and programs
Funding Sources:	County funds (staff assistance)
<hr/>	
Objective 5B:	Explore a capital improvement program based upon decisions made for implementing this plan.
Action 5B1:	Consider a Lebanon County Parks, Recreation and Open Space Program. Using a bond program, the county could provide financial support to match grants for multi-municipal parks, recreation and open space planning, land acquisition, conservation easements, and trails. For communities with enough parkland, funds could be used for facility development.
Intended Outcome:	Expand recreation opportunities by providing local match for state grants.
Time Horizon:	2008 an ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Municipalities; School Districts; Non-profit recreation partners
Funding Sources:	Potential county and municipal open space and park fund
<hr/>	
Action 5B2:	Provide information to municipalities on sources of potential funds for parkland such as the mandatory dedication of parkland ordinance.
Intended Outcome:	Promote funding options to advance the development of recreation opportunities.
Time Horizon:	2009 and ongoing
Lead Partners:	Lebanon County Commissioners; Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon Valley Conservancy
Funding Sources:	County funds (staff assistance)

Action 5B3:	Explore the dedication of a portion of the hotel tax for parks and recreation efforts related to tourism. Consider developing a grant program through the hotel tax to municipalities and organizations that would create attractions or sites that foster tourism.
Intended Outcome:	Increase funding for the development of parks, recreation, and trails and for the conservation of open space related to tourism.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Commissioners
Support Partners:	Lebanon Valley Tourism Promotion Agency
Funding Sources:	County funds (staff assistance)

11

Historic Resources Plan

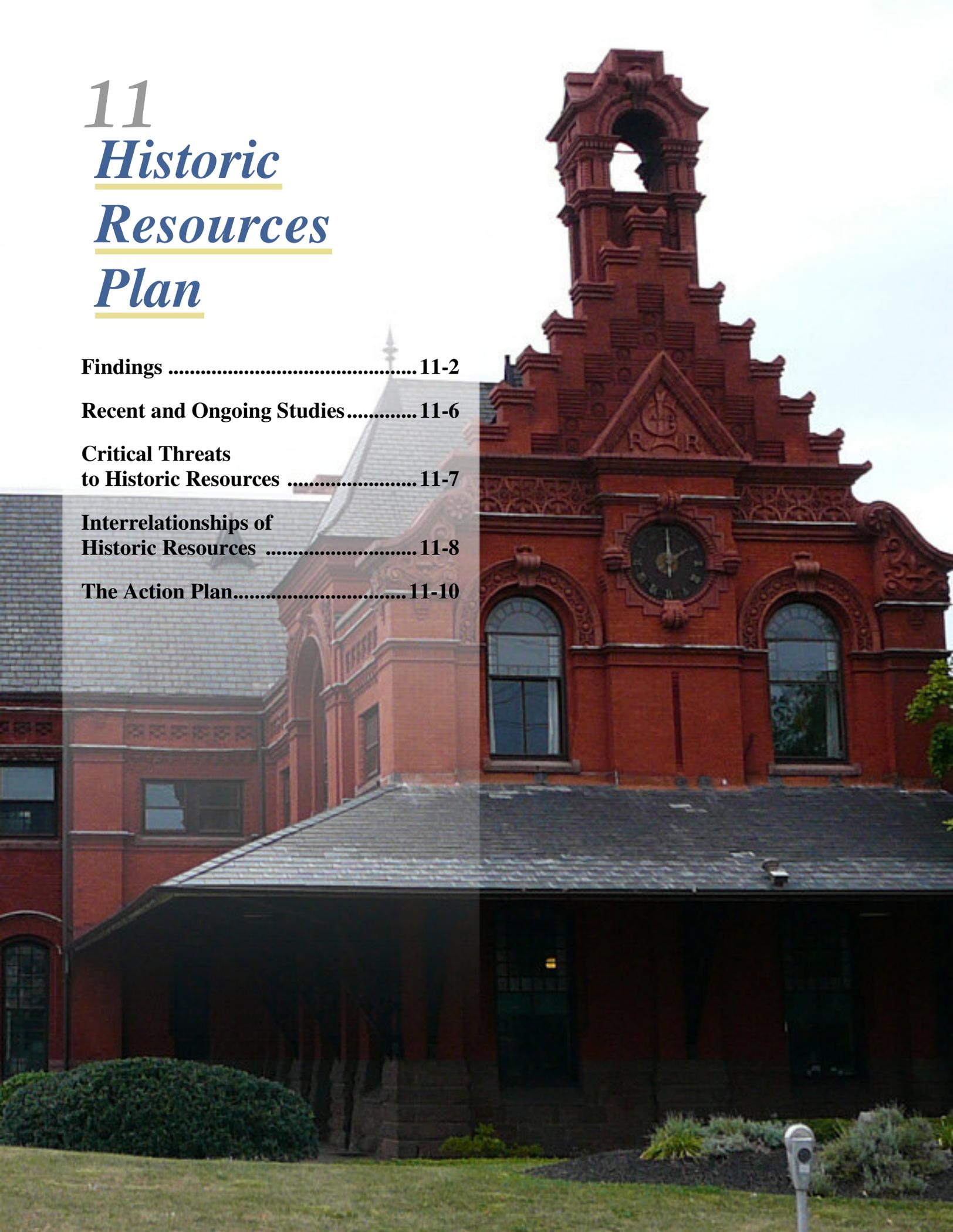
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Lebanon County has a rich culture and history. Various cultural and historic resources in the county signify the time periods and landmark events that have defined the county over time. It is these resources that contribute to quality of life in the county today and serve as compelling reminders of the past.



The Lebanon County Historic Resources Plan is presented in five major sections. The first overviews findings from the *Historic Resources Profile, Background Study #7*, including the significance of the people, places, and events that depict Lebanon County's history, and the status of their protection and interpretation. The second notes recent and ongoing studies that are identifying additional historic resources. The third summarizes critical threats to historical resources. The fourth addresses the interrelationship of historic resources preservation to other elements of the comprehensive plan. The fifth and final section, the Action Plan, outlines the vision for historic resources in the county as well as goals and objectives for increased awareness, preservation, and protection of historic resources.

The Pennsylvania Municipalities Planning Code provides a requirement for a plan for historic resources in the county comprehensive plan. The Lebanon County Comprehensive Plan has separated historic resources protection from natural resources protection, given the great significance of both of these elements.

MPC Requirement: *A plan for the protection of natural and historic resources to the extent not preempted by federal or state law. This clause includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, flood plains, unique natural areas and historic sites.*

MPC Article III, Section 301(a)(6)

Overview of Findings

Findings from the Historic Resources Profile

A detailed historic resources profile and analysis were compiled in preparation for the development of the Historic Resources Plan. This profile included a brief historical sketch of events that have occurred in Lebanon County and an inventory of historic resources in the county.

The Significant People, Places, and Events in Lebanon County's History

The following are key findings from the profile that describe ways in which people, places, and events have shaped the county over time.

- Prior to colonial settlement, the Lebanon Valley was occupied by Native Americans, namely the Leni Lenape or Delaware Indians of the Algonquin family. The legacy of Native Americans is still present in named landscape features, such as the Swatara, Quittapahilla, Conewago, and Tulpehocken Creeks and Kittatinny Ridge.
- The Scotch-Irish and German settlers established local industries, work ethic and culture beginning in the early 1700s. Many of these settlers were farmers who were attracted to the fertile valley in then eastern Dauphin County where land was available by payment or squatting. The Germans, or Pennsylvania Dutch, were known for their stalwart religious beliefs, anti-regulatory/anti-government stance, and resistance to change. The Amish and Mennonite communities throughout south central Pennsylvania are present-day examples of such fervent beliefs.
- Reflective of the American “melting pot,” cultural diversity has been increasing since colonial settlement. The end of the 19th and early 20th centuries brought Eastern European immigrants to the steel mills of the region. The Serbian culture was particularly prominent in the northeastern portion of the City of Lebanon but when the steel industry began to fade, these people dispersed themselves throughout the county and beyond. Fort Indiantown Gap and nearby communities were hubs for Vietnamese refugees in the mid 1970s; grateful for the sanctuary of peace and employment opportunities, these people “melted” into local communities.



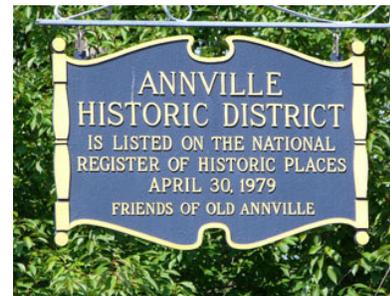
Today, cultural diversity is still increasing with Hispanic and Latino growth having the greatest influence on community change. Radio Omega, a Lebanon-based bilingual (English/Spanish) radio station featuring a unique blend of Latin pop, Salsa, Merengue and other Spanish hit songs, held its first broadcast in 2003. Spanish and Mexican foods are widely available through restaurants and grocery stores. And Spanish text is commonly seen in retail and service locations. These populations continue to grow, bringing with them a variety of food, languages, and customs to Lebanon County’s evolving culture.



- Lebanon County has seen a variety of industries emerge, evolve and flourish since its early development. As farming became more productive and products were commoditized, food and fiber processing moved into the valley. As iron ore was discovered, the iron and steel industry emerged, catalyzing the growth of an industry that would become the backbone of both the county and state economies for decades. The lumber and coal industries helped establish communities in the northern part of the county.
- The need to transport products to regional markets and people to employment and leisure destinations drove the development of the transportation system. Roads, canals, passenger and freight railroads, streetcars, trolleys, and buses have connected the county's communities with each other, then to the rest of the region and the Commonwealth.
- Lebanon County shares in famous firsts, not the least of which is the waterworks of colonial Schaefferstown, the first water conveyance system through underground pipes established in a British colony in North America.
- Lebanon County has retained a state and national military importance throughout history. Though encampments at Mount Gretna, the former Cold Spring Resort, and Camp Shand have ceased to exist, Fort Indiantown Gap Military Reservation still serves as an important training center for the Pennsylvania National Guard.

The Inventory and Protection Status of Recognized and Potential Historic Resources

- In Lebanon County, there are 24 properties listed on the National Register of Historic Places, including three national landmarks, and an additional 68 properties which are considered eligible for the National Register. Properties listed on the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering and culture. Designation on the National Register draws attention to historic resources and may influence the way communities value and protect these resources; however, designation does not interfere with a private property owner's right to alter, manage, or dispose of property.
- There are 32 historic markers located in the county, most of which are roadside markers.
- Protection and promotion of historic resources in the county have been quite localized. Only three municipal historic preservation initiatives have occurred in the county. Cornwall Borough and Heidelberg Township utilize historic district overlays in their zoning ordinances, and Annville Township uses an historic district zoning and an Historic Architectural Review Board (HARB). The Annville Historic District is located on the National Register of Historic Places.



- The historic resources profile was limited to the inventory of recognized historic resources that are located in Lebanon County. Additional sites of historic significance undoubtedly exist in the county.
- Officials and the Historic Preservation Trust of Lebanon County nominated 68 additional sites of potential local significance in the county through the planning process. This list serves as a starting point for further inventory and preservation planning efforts. The Trust specifically noted the razing of historically significant local barns as a primary concern.

Preservation Partners

- Several non-profit and advocacy organizations have formed to protect selected sites or districts; five are community-based and three operate countywide:
 - Cornwall Historical Alliance
 - Cornwall Iron Furnace Associates
 - Friends of Old Annville
 - Historic Schaefferstown
 - Mount Gretna Area Historical Society
 - Lebanon County Historical Society
 - Historic Preservation Trust of Lebanon County
 - Lebanon Valley Conservancy
- Other historic preservation organizations that are available to promote historic preservation and awareness and provide technical assistance to local organizations include:
 - Pennsylvania Historical and Museum Commission (PHMC)
 - Preservation Pennsylvania
 - Pennsylvania Archaeological Council
 - Pennsylvania Downtown Center
 - Pennsylvania Heritage Society
- Local governments can strengthen their local historic preservation efforts by achieving Certified Local Government (CLG) status from the National Park Service. The National Park Service and the Pennsylvania Historical and Museum Commission administer the Certified Local Government (CLG) program. The program provides technical assistance and small grants to local governments undertaking historic preservation initiatives and encourages the integration of historic preservation into local land use policy. In Pennsylvania, a municipality may become a CLG by fulfilling certain requirements. This includes the enactment of an historic preservation ordinance affording protection of historic buildings, structures, and areas certified by the Pennsylvania Historical and Museum Commission as historic, and by establishing regulations and appointing a



Board of Historical Architectural Review or an Historical Commission to advise the governing body or zoning hearing board as to the issuance of certificates of appropriateness or permits. Federal law provides that at least 10 percent of the annual Historic Preservation Fund grant allocation to Pennsylvania be set aside for distribution to CLGs. The Certified Local Government Grant requires a 50/50 match and is available through PHMC to support staffing, training, and third party administration. Pooling of grants is permitted among certified local governments who wish to share project or service costs, such as the services of a preservation professional.

Recent and Ongoing Studies

An Inventory of Pennsylvania Historic Barns

The Pennsylvania Department of Agriculture (PDA) and PHMC have completed an inventory of historic barns, or barns constructed before 1960, in Pennsylvania. The Center for Rural Pennsylvania assisted PDA and PHMC with the barn inventory in 2006. The inventory involved distributing a survey to owners of historic barns, or those barns constructed before 1960. The following characteristics of historic barns were surveyed:

- Barn siding and special decorative or functional features
- Types or styles of barns
- Physical condition of the barn
- Barn alterations
- Barns in active farming
- Barns in active agritourism
- Length of barn ownership
- Participation in barn and farm preservation programs



Approximately 962 of 1,600 surveys were returned for a response rate of 60%. The survey concluded that:

- Pennsylvania has a wide distribution and variety of historic barns.
- The majority of historic barns are in good condition.
- Most historic barns are still in agricultural use.
- Many barns are on farms that are participating in some kind of agricultural or historic preservation program.
- There is strong support for a state barn preservation program.

Pennsylvania’s Agricultural Resources Project

PHMC and PennDOT Bureau of Design, in cooperation with Pennsylvania State University, are working to develop a Multiple Property Documentation Form (MPDF) to document the scope and character of Pennsylvania’s historic agricultural resources and to use it to inform community and transportation planners during project development. Information on agricultural resources in Lebanon County is still being collected as part of the collection of PennDOT’s District 8-0 data. The entire statewide study is expected to be completed by 2009.

Critical Threats to Historic Resources

Based on the findings of the *Historic Resources Profile* and other studies, as well as findings from other comprehensive plan profiles, the primary threat to historic resources in Lebanon County is their location with respect to the path of growth, including changes in land use, transportation improvements, the need for economic development and the need for housing. The path of growth is defined in the land use and housing components of the comprehensive plan as a four-fold pressure:

1. The Harrisburg-Hershey influence on the Palmyra Area School District region whereby municipalities in the school district are currently experiencing development pressures from the west.
2. Pressure from Reading/Berks and Philadelphia on the ELCO School District region, specifically in Jackson and Millcreek Townships.
3. Strong out-migration from the City of Lebanon to the Cornwall-Lebanon School District region that began in the 1950s and 1960s and continues today.
4. Interstate influence on the Northern Lebanon School District region, primarily Bethel, Swatara and Union Townships.

Preparing to accommodate these changes while sustaining the local quality of life, requires a working knowledge of all community resources – natural, man-made and cultural resources. Lebanon County and its municipalities are hindered by an incomplete inventory of historic resources with local and potentially state significance, the lack of a thorough evaluation or assessment of these resources and threats to their continued use, and a lack of priorities that could generate public and private support for preservation of historic resources that merit such protection. If historic resources are to be protected as the county continues to develop, further investment in identification, evaluation, and preservation will be needed.



Interrelationship of Historic Resource Preservation with Other Elements of the Comprehensive Plan

Historic resources preservation is most successful when it is integrated into other aspects of planning that affect the municipality, such as the preservation of open space, scenic roadways, and the provision of trails and bikeways. Linking these preservation initiatives raises awareness of the number, type, and significance of these resources in the county and helps maintain them as functional and integral parts of the community.

Economic Development and Heritage Tourism

Some of Lebanon County's historic resources, such as the Union Canal and the Cornwall Iron Furnace and Mines, have regional and statewide significance. Effectively promoting these resources can increase total tourism revenues. Their presence builds pride and spurs support for preservation at local and state levels.

The niche field of heritage tourism is a multi-billion dollar industry in Pennsylvania. This is due in part to typically longer visits than other types of tourism trips. Longer stays mean more lodging and service revenues and job growth for the service sector. Regional marketing with other heritage tourism destinations, such as the Amish in Lancaster County, and the National Battlefields in Gettysburg could draw additional travelers to the county. Even amid increasing fuel prices, investment in heritage tourism and marketing can yield benefits, as residents seek tourism and recreation destinations close to home.

Heritage tourism and outdoor recreation travel are closely related. Consider the Lebanon Valley Rail Trail; this historic transportation corridor is now popular as a recreation destination. Linking historic resources with other greenways and trails can help to increase awareness of the historic resources, expose and promote heritage tourism opportunities and destinations, and increase the quality of life for residents of the community.¹



Heritage tourism in Pennsylvania is at a turning point. A statewide summit in 2000 concluded that Pennsylvania must renew its commitment to heritage tourism development in innovative ways if it wants to continue to grow this portion of the state's economy. Several major barriers to continued growth were identified:

- Fragmentation of effort and lack of integrated leadership
- Lack of public education and awareness

¹ "Moving Heritage Tourism Forward in Pennsylvania". Prepared for the Pennsylvania Department of Conservation and Natural Resources; The Pennsylvania Department of Community and Economic Development; The Pennsylvania Historical and Museum Commission; and the Center for Rural Pennsylvania, May 2001.

- Uneven quality in site restoration and interpretation
- Inadequate visitor service infrastructure
- Lack of aggressive marketing
- Insufficient investment

These barriers are characteristic of heritage tourism efforts in Lebanon County as well. In order to successfully take advantage of the benefits of heritage tourism, it will be necessary to address these factors.

At a neighborhood scale, distinctive architectural styles among structures of a single era or builder can set a building apart from its surroundings and imply that the occupant, likewise, is unique. This distinction can be an asset to marketing a business location and thereby the products and services it offers.

Community Development and Land Use

Historic resources can also play a role in community development. A cluster of historic homes or businesses can comprise an historic district, which by its designation can draw attention to the resources. When maintained, these structures or districts can become landmarks in the community and generate community pride among citizens. When in a state of neglect or disrepair, this attention can be used to foster renovation and rehabilitation projects by the public and private sectors.



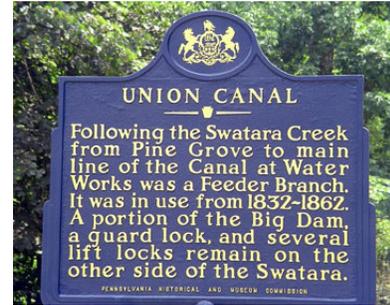
As previously noted, the Historic Preservation Trust of Lebanon County has identified the razing of historic barns as a critical issue. These historic barns are under recognized due to their rural locations and unassuming, vernacular style. Also noted was the conclusion by the Center for Rural Pennsylvania that many of the historic barns in the state are in good condition and active in agricultural or agritourism use. County and state programs already support the preservation of agricultural resources and based on this study may develop programs to preserve historic barns as well. Preserving the agricultural use of the property demonstrates an interest by the property owner and reduces the chance that an historic barn will be demolished or replaced by a change in land use, e.g. residential, commercial or industrial development. In this way, historic land preservation programs can apply short-term protection, though not true preservation, for historic barns.

Transportation and Travel Corridors

Transportation improvements can influence the character of an area – for better or for worse. When alignment and design consider nearby historic features, the approach is

called “context sensitive design”. The federal-aid highway program is currently the largest single source of federal funds available to the states for historic preservation.²

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration; PennDOT has a parallel program for State Scenic Byways. These programs help communities preserve the intrinsic qualities of unique roadway corridors, including the archaeological, cultural, historic, natural, recreational, and scenic features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area. The byways designation can be used as a recreation and tourism promotional tool and provides access to special funds for byways protection, improvements, and promotion.



Due to its location in the travel right-of-way, traveler signage is often classified as a transportation feature. Directional signs can assist first time visitors in finding destinations, historic or otherwise. These signs can also boost awareness of historically significant sites among local citizens.

The Action Plan

The Historic Resources Action Plan identifies a variety of actions for the county and its partners to undertake to facilitate historic resources preservation in the county. The recommendation to develop an historic resources inventory and historic preservation plan is perhaps the single most important element of this Action Plan. A second critical recommendation is to promote municipal approaches to historic preservation, such as the development of historic architectural design guidelines and the establishment of a community or regional Historic Architectural Review Board (HARB). Several actions are aimed at increasing public awareness of the many historic resources that exist in the county. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are included.



Vision, Goal and Objectives

A clear and concise vision for historic resources management and promotion should reflect all aspects of historic preservation and awareness, including promotion of historic resources for heritage tourism purposes, and increased community pride and awareness of architectural character. The plan’s goal must then set the direction for change and present associated objectives to encourage sustainable and continuous historic preservation and promotion efforts.

² United States Department of Transportation, Federal Highway Administration

Vision

Significant sites, structures, events and figures of Lebanon County's history contribute to its unique character. Historic sites and structures are recognized as landmarks in their communities. They have been adopted by business owners and residents as unique environments for modern uses. Their architecture serves as a model for new construction seeking to fit into local communities. Historic events are celebrated in public spaces such as parks, sidewalks, and plazas, and interpreted through signs, stories, and festivals. Private property owners and non-profit organizations lead the charge in protecting these resources, while public policies provide the needed tools. The preservation and promotion of these resources enables today's citizens to connect with the rich heritage of the county's past generations.

Goal

Safeguard and promote historical resources and the heritage of Lebanon County.

Objectives

- A. Identify districts and landmarks that embody important elements of county culture, history, or architectural history.
- B. Protect such districts and landmarks from unnecessary destruction and degradation and promote appropriate use and re-use of historic properties.
- C. Promote the interpretation of such districts and landmarks for the education, pleasure, and enrichment of county residents and visitors.
- D. Encourage new development to fit into local architectural patterns for buildings, site design, and public spaces.

Recommendations

Goal 1:	Safeguard and promote historical resources and the heritage of Lebanon County.
Objective 1A:	Identify districts and landmarks that embody important elements of county culture, history, or architectural history.
Action 1A1:	Develop an historic resources inventory that includes recognized and potential historic resources as a foundation for an historic preservation plan.
Intended Outcome:	A comprehensive historic resources inventory that identifies all of the historically significant sites in the county, discusses their significance, identifies threats and status of protection. The inventory could be developed as a single countywide project, phased by multi-municipal regions, urban then rural regions, or path of growth travel corridors.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Historical Society; Historic Preservation Trust of Lebanon County; Lebanon Valley Conservancy
Support Partners:	LEBCO MPO; Lebanon County Planning Department; Lebanon City/County GIS; Municipalities; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	Lebanon County Commissioners; LEBCO MPO Unified Planning Work Program; Municipalities; Local Historic Commissions and/or Historic Societies; Pennsylvania Historic and Museum Commission (PHMC); PA Humanities Council; Pennsylvania Department of Community and Economic Development (DCED) Community Revitalization Program (CRP); National Endowment for the Humanities; National Trust for Historic Preservation; National Park Service (NPS); Foundations
Action 1A2:	Establish a County Historic Commission to advise the County Commissioners on historic preservation matters and to enable the county to apply for Certified Local Government Status.
Intended Outcome:	A coordinated approach to historic resource protection, and the achievement of certified local government status that will qualify the County for special grants through PHMC.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Historical Society; Historic Preservation Trust of Lebanon County; Lebanon County Planning Department; Lebanon Valley Conservancy
Support Partners:	Lebanon County Commissioners; LEBCO MPO; PHMC; Municipalities; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	Lebanon County Commissioners; PHMC; DCED CRP; National Endowment for the Humanities; National Trust for Historic Preservation; NPS; Foundations

Action 1A3:	Acknowledge historic resources in county and municipal plans.
Intended Outcome:	Increased awareness of recognized and potential historical resources at the local planning level.
Time Horizon:	Ongoing throughout plan development and updates
Lead Partners:	Municipalities; Lebanon valley Conservancy
Support Partners:	Lebanon County Planning Department; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA); subject property owners
Funding Sources:	Municipalities
Action 1A4:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets. Utilize PHMC point-based GIS data to convert to parcel based geographic data.
Intended Outcome:	Current spatial and informational data for recognized (and potential) historic resources to assist in preservation and promotional efforts.
Time Horizon:	Ongoing as data is developed and acquired
Lead Partners:	Lebanon City/County GIS; Lebanon County Historical Society; Lebanon Valley Conservancy
Support Partners:	PHMC; Lebanon County Planning Department; Municipalities; Historic Preservation Trust of Lebanon County; Local historical societies; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	DCED Land Use Planning and Technical Assistance Program (LUPTAP); DCED Local Municipal Resources and Development Program (LMRDP); DCED CRP; National Endowment for the Humanities

Objective 1B:	Protect historic districts and landmarks from unnecessary destruction and degradation, and promote appropriate use and re-use of historic properties.
Action 1B1:	Develop an historic preservation plan that prioritizes critical resources for immediate or near-term action and identifies protection measures or options for historic resources.
Intended Outcome:	Priorities for county and local historic preservation efforts
Time Horizon:	2010-2011 following the resource inventory
Lead Partners:	Lebanon County Planning Department; LEBCO MPO; Lebanon Valley Conservancy
Support Partners:	Historic Preservation Trust of Lebanon County; Lebanon County Historical Society; Municipalities; Subject property owners; PHMC; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	Lebanon County Commissioners; LEBCO MPO Unified Planning Work Program; Municipalities; Local historic commissions and/or historic societies; PHMC; PA Humanities Council; DCED CRP; National Endowment for the Humanities; National Trust for Historic Preservation; NPS; Foundations
Action 1B2:	Recommend an Historic Architectural Review Board (HARB) and a model HARB ordinance to municipalities with historic districts.
Intended Outcome:	Local governing bodies can utilize HARB for advisement in matters pertaining to the preservation of the historic character of the community
Time Horizon:	Ongoing with emphasis during comprehensive and preservation planning
Lead Partners:	Lebanon County Planning Department; Municipalities; Lebanon Valley Conservancy
Support Partners:	PHMC; Lebanon County Historical Society
Funding Sources:	Municipal Budgets; DCED LUPTAP; DCED LMRDP; DCED CRP; PA DCED Urban Development Program (UDP); Natural Lands Trust

Action 1B3:	Require developers to identify and, where feasible, preserve and re-use historic features on proposed development sites.
Intended Outcome:	Preservation and continued use of historic resources
Time Horizon:	2010-2011 in conjunction with other subdivision and land development ordinance amendments and/or historic preservation planning
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Developers; Lebanon County Conservation District; Lebanon Valley Conservancy
Funding Sources:	Municipalities; Public/private partnerships
Action 1B4:	Support efforts of the Lebanon County Historical Society to continue development and expansion of the Union Canal Tunnel Park.
Intended Outcome:	Creation of a premier historic and natural resource area around the historic Union Canal, including restored locks and the relocated Lebanon County Historical Society offices, library, museum and educational center
Time Horizon:	Ongoing as land and funding are available
Lead Partners:	Lebanon County Historical Society
Support Partners:	Lebanon County Commissioners; Lebanon Valley Conservancy
Funding Sources:	PHMC; DCNR; Friends of the Union Canal Tunnel Park of the Lebanon County Historical Society; Public/private partnerships; Lebanon County Commissioners
Objective 1C:	Promote the interpretation of historic districts and landmarks for the education, pleasure, and enrichment of county residents and visitors.
Action 1C1:	Facilitate voluntary historic architectural renovation and reconstruction efforts.
Intended Outcome:	Historic preservation by the private sector.
Time Horizon:	Ongoing outreach
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Conservancy
Support Partners:	Municipalities; Local HARB
Funding Sources:	Municipalities; Local historical societies; PHMC; DCED CRP; National Endowment for the Humanities; National Trust for Historic Preservation; NPS; Foundations

Action 1C2:	Provide information to the public about historic resources in the county and the county's preservation policies and programs.
Intended Outcome:	Increased public awareness of historic resources and increased pride in the community.
Time Horizon:	2010-2011 coordination with lead partners; ongoing outreach thereafter
Lead Partners:	Lebanon County Historical Society; Historic Preservation Trust of Lebanon County
Support Partners:	Local historical societies; Lebanon County Planning Department; Municipalities; PHMC; LEBCO MPO; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	Municipal Budgets; DCED; PHMC; National Trust for Historic Preservation; National Endowment for the Humanities; Foundations
Action 1C3:	Support the efforts of the Historical Society, the Historic Preservation Trust and other preservation partners.
Intended Outcome:	Increased awareness of historic resources in the county and a coordinated approach to historic resources preservation initiatives.
Time Horizon:	Ongoing coordination and outreach
Lead Partners:	Lebanon County Planning Department; Lebanon Valley Conservancy
Support Partners:	Lebanon County Historical Society; Historic Preservation Trust of Lebanon County; Local historical societies; Lebanon County Conservation District; Swatara Creek Watershed Association (SCWA)
Funding Sources:	Lebanon County Commissioners; Municipalities; DCED; PHMC; National Trust for Historic Preservation; National Endowment for the Humanities; Foundations
Action 1C4:	Initiate recognition and certification program for historic barns.
Intended Outcome:	Increased awareness of historic barns in the county and encouragement for preservation.
Time Horizon:	2012-2013
Lead Partners:	Historic Preservation Trust of Lebanon County; Lebanon Valley Conservancy; Swatara Creek Watershed Association (SCWA)
Support Partners:	Lebanon County Historical Society; Lebanon County Planning Department; Municipalities; Lebanon County Conservation District
Funding Sources:	Foundations; PHMC

Objective 1D: Encourage new development to fit into local architectural patterns for buildings, site design, and public spaces.

Action 1D1: Encourage the adoption of local design guidelines that include historic patterns and materials.

Intended Outcome:	Continued use of vernacular building patterns, as they may exist.
Time Horizon:	Ongoing with emphasis during comprehensive and preservation planning
Lead Partners:	Municipalities; HARBs; Lebanon Valley Conservancy
Support Partners:	Lebanon County Planning Department; Historic Preservation Trust of Lebanon County; Lebanon County Historical Society
Funding Sources:	Lebanon County Commissioners; Municipalities; DCED

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12

Housing Plan

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The quality, condition, value, and affordability of the housing stock are extremely important characteristics directly related to the prosperity of Lebanon County. Housing that is suitable and affordable assures a stable property tax base that will continue to appreciate in value. Sound housing encourages well maintained neighborhoods that are conducive to a healthful and pleasing community life. Therefore, it is critical that the county develop a plan which identifies ways to provide a variety of housing types and values for its present and future residents.



The Pennsylvania Municipalities Planning Code (Act 247) requires a housing plan that will meet the housing needs of present and projected residents through provisions for conservation of presently sound housing, rehabilitation of housing in declining neighborhoods, and the accommodation of new housing for households of all income levels.

MPC Requirement: *A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels.*

MPC Article III, Section 301(a)(2.1)

The Lebanon County Housing Plan is presented in six major sections. The first documents findings from the *Housing Profile, Background Study #2* and other planning studies on housing. The second presents analyses of housing options in the county, followed by a third on housing needs. The fourth section discusses the range of alternative available to meet housing needs in the county. The fifth discusses the interrelatedness of housing with land use and economic conditions and demographic changes. The final section, the Housing Action Plan, establishes housing policies through a vision, goal and objectives and outlines strategic approaches to sustain sound housing opportunities for current and projected residents in the county.

Overview Findings from the Housing Profile and Other Housing Studies

Findings from the Housing Profile

A detailed housing statistics report and trends analysis was compiled in preparation for the development of the Housing Plan. This 31-page housing profile presented data acquired from the U.S. Census Bureau, Lebanon County Planning Department (LCPD), and local agency and real estate records. The following are key findings from the profile

that characterize the current conditions and notable trends in Lebanon County's housing market.

- Between 1990 and 2000, housing growth took place in 21 of 26 municipalities in the county. The six municipalities that added the most housing were Jackson Township, North Londonderry Township, North Lebanon Township, North Cornwall Township, South Lebanon Township, and South Londonderry Township. Five municipalities – Cleona



- Borough, North Annville Township, West Lebanon Township, East Hanover Township, and Union Township - experienced a decline in the number of housing units.
- The rate of housing unit growth in the county outpaced growth across the state in four of the six school districts. The Cornwall-Lebanon School District added the most housing units, and the Palmyra Area School District experienced the most significant rate of housing unit increase.
- Housing units are older in the boroughs, Lebanon City, West Lebanon Township and Annville Township than in the other townships of the county.
- Lebanon County had a slightly higher percentage of owner occupied housing than Pennsylvania in 2000. Rental housing is concentrated in the City of Lebanon and the boroughs, specifically Palmyra, Myerstown, and Jonestown Boroughs. Annville Township and North Cornwall Township, which includes the Pleasant Hill area adjacent to the city, also had notably high rental occupancy rates—above 30%.
- Housing values were generally higher in the townships that border Dauphin County, due to their proximity to employment centers and amenities in Harrisburg and Hershey. Mount Gretna Borough had higher housing values due to the historic nature of the homes and the cultural flair of the community. Other anomalies include Cornwall Borough and Heidelberg Township. Housing values were the lowest in the City of Lebanon and the boroughs along Route 422, likely influenced by declining homeownership rates, excessive rental availability, and an aging housing stock.
- The composition of housing types in Lebanon County by number of units per structure is roughly in line with that of the state, though the composition by school district and by municipality varies widely. Most of the newer housing units being constructed and proposed in the townships are single family detached dwellings, which add to the already high concentrations of this type of housing in these areas.

- High density residential development is predominantly concentrated along the Route 422 corridor. Low density residential development has occurred throughout the county dispersed in planned subdivisions and in strip patterns along roadways.
- Overall, Lebanon County’s vacancy rate is 5.7% - within the 4%-6% range considered healthy for a community. From a school district perspective, the Annville-Cleona, Cornwall-Lebanon and Northern Lebanon School Districts had healthy vacancy rates. Vacancy rates in the Palmyra Area School District and ELCO School District were slightly lower than 4%, expressing a tighter housing market. On the other end of the spectrum, the Lebanon School District had a vacancy rate of 8.4%, or roughly 950 units. City officials suggested that this figure was too high and noted their efforts to reduce vacancies in recent years. On the municipal level, 13 of the 26 municipalities in the county had vacancy rates that were below 4%, which is indicative of a high demand for housing units. The highest vacancy rates in the county are found in Mount Gretna Borough and Cold Spring Township and are due to seasonal housing.

Table 12-1 Municipal Vacancy Rates by School District, 2000

School District	Vacancy Rates Below 4%		Vacancy Rates 4%-6%		Vacancy Rates Above 6%	
	Municipality	Vacancy Rate	Municipality	Vacancy Rate	Municipality	Vacancy Rate
Annville-Cleona SD	South Annville	3.0			Annville	6.6
	Cleona	3.7				
	North Annville	3.8				
Cornwall-Lebanon SD	South Lebanon	3.6	Cornwall	4.1	West Cornwall	16.5
	North Lebanon	3.8	North Cornwall	5.3	Mount Gretna.	42.9
ELCO SD	Heidelberg	3.1	Millcreek	4.3		
	Jackson	3.3	Myerstown	5.5		
	Richland	3.3				
Lebanon SD	West Lebanon	3.8			Lebanon City	8.5
Northern Lebanon SD	Swatara	3.7	East Hanover	5.2	Union	8.0
	Jonestown	3.8	Bethel	6.0	Cold Spring	24.0
Palmyra Area SD	North Londonderry	2.4	Palmyra	4.9		
	South Londonderry	3.6				

Source: U.S. Census Bureau

- The projection for additional housing units needed by 2020 ranges from 14,510 to 15,566 units. A range of 5,594 to 5,866 housing units will need to be affordable to lower income households throughout the county by 2020.
- According to the build-out analysis presented in the *Land Use Profile, Background Study #9*, the capacity provided by zoning and utility planning far exceeds the projected housing need of approximately 15,500 units for the year

2020. There is no need to increase the quantity of residentially zoned land while this capacity exists.

- The Lebanon County Housing and Redevelopment Authority, the Lebanon County Housing Rehabilitation Office, and the Lebanon County Community Action Partnership offer programs to combat homelessness and assist residents in meeting their housing needs. Non-profit organizations, such as Habitat for Humanity, are also active in Lebanon County.
 - The Lebanon County Housing and Redevelopment Authority administers the Section 8 Housing Choice Voucher Program, First Time Homebuyers Program, and the Housing Repair Program, which offers housing and rental assistance as well as funding for property repairs needed to bring them up to the community's housing standards. Unfortunately, additional federal budget reductions in the Section 8 program are anticipated over the next few years, potentially reducing the number of assisted families in Lebanon County.
 - The Lebanon County Housing Rehabilitation Office of the Lebanon County Housing and Redevelopment Authority administers the Housing Accessibility Program (ACCESS) to provide grants to low and moderate income persons with permanent disabilities for structural modifications to their home that increase accessibility and reduce the need for institutionalization.
- The Lebanon County Community Action Partnership's mission is to prevent homelessness by providing rental or shelter assistance to families by intervening in cases where eviction is imminent, assisting with future rent and providing transitional and bridge housing. CAP administers the Homeless Assistance Program (HAP) on behalf of the Pennsylvania Department of Public Welfare. HAP is designed to move homeless and near homeless clients towards self-sufficiency. Where appropriate, education, transportation and child care assistance may also be provided.
- Habitat for Humanity of Lebanon County, a nonprofit, ecumenical housing organization, works in partnership with people in need to build and renovate decent, affordable housing. The organization has completed 17 projects in the county since its inception in 1990, and predicts the number of projects completed annually will increase in the coming years. It is also eligible for dedicated funding from the US Department of Housing and Urban Development.



- Bridge of Hope of Lebanon County provides mentoring, education, and financial assistance and helps its families achieve financial self-sufficiency through full time employment and budget management training. To date, however, this program has had limited success with only one family completing the program.
- According to the 2006 Self Sufficiency Standard for PA prepared by PathwaysPA, as reported in the *Economy and Employment Profile, Background Study #3*, a family of five living in Lebanon County with one working adult, one stay-at-home adult, and three children (infant, preschooler, school age) would need an annual income of \$45,265 or an hourly wage of \$21.43 to pay for the annual family and household costs of housing, child care, food, transportation, health care, taxes and miscellaneous expenses. A family of four with two working adults, one school age child and one preschooler would need an annual income of \$39,855, or hourly wage averaging \$9.44. Eight of 22 industries in the Lebanon MSA (Lebanon County) offer average hourly wages equal or higher to \$21.43 and only two (food preparation and serving and personal care and service) offer average hourly wages below this \$9.44. The availability of jobs in these industries and at or near these average wage rates are important to enabling residents to acquire and maintain adequate housing and fulfill basic needs.

Findings from the Public Outreach

The Lebanon County Planning Department sought public input throughout the development of the Lebanon County Comprehensive Plan. This section reports housing concerns found among residents, local officials, and community leaders who participated in the numerous public outreach opportunities provided during the planning process.

- Residents are particularly concerned with the location and rate of residential development in the county and its resultant conversion or loss of open space. They perceive that residential development is unplanned and unmanaged, resulting in what many call “sprawl.” They believe that such development negatively impacts natural resources and rural industries. Residents suggest that a greater portion of development should be located in and around established communities in close proximity to schools and should incorporate a variety of uses. Some residents indicated that development in the northern portion of the county could be targeted to the US 22 corridor to



take advantage of this regional transportation corridor. Through a survey of municipal officials and managers, these leaders indicated that they are open to development alternatives that provide housing and protect open space.

- Residents and community leaders recognize that Lebanon County has a tight housing market. Available units offer narrow choices in number, cost and type for working families. Yet, municipal officials and many residents still favor single family homes on individual lots to all other options and believe that housing is affordable within their respective school districts. This is particularly evidenced by ongoing public opposition to rezoning requests and attempts to amend zoning ordinances to increase densities in existing residential districts. The majority of residents surveyed felt that increasing the number of smaller homes and affordable homes and improving housing options in downtowns were somewhat important to improving housing options in the county. Community leaders were particularly concerned about the lack of low income housing and the comprehensive living costs for working families, as well as the need for assisted living facilities for the elderly, as these conditions can lead to increased homelessness .

- Housing maintenance and housing rehabilitation are also very important to residents, especially in the City of Lebanon and boroughs. Community leaders were particularly concerned about the lack of maintenance by absentee landlords, resulting in declining property values throughout various neighborhoods.



- Community leaders and surveyed residents are concerned with the quality of home construction. Leaders acknowledged that the Lebanon County Planning Department is most familiar with developers working in the county and seems to know which developers build quality homes and which require more careful enforcement, suggesting that more municipalities should take advantage of this knowledge. Seventeen of the 26 municipalities have contracted the Lebanon County Planning Department as a Certified Third Party Inspection Agency to provide administration and enforcement of the Pennsylvania Uniform Construction Code (UCC). The Planning Department began enforcing residential building codes in 1991 with the Council of American Building Officials (CABO) I and II Family Dwelling Code. Currently, it enforces the 2006 version of the International Residential Code.

Findings from Previous Housing Studies

1. Lebanon County Interim Plan, 1987

The *Lebanon County Interim Plan* projected housing needs through 2000. Using the plan's population projections for 1990 and 2000 and an estimate of the housing density ratio, the plan determined needed acreages for each of three residential neighborhood densities. Comparing these to the inventory of available land zoned for residential development, the plan projected that sufficient land would be available for housing needed through the year 2000.

In the plan's utilities section, it concluded that the extension of water and sewer service areas to "...presently developed areas to service existing uses and into undeveloped areas where future development can be encouraged..." was imperative for continued orderly development. Extensions of water and sewer utilities to serve existing developed areas, as well as extensions to serve approved, to-be-constructed development in areas locally planned and zoned for residential uses, were in fact constructed. Further extensions were not necessary due to the abundant supply of undeveloped lands zoned for residential uses and the modest development pressure of the early to mid 1990s.

2. 2005 Community Needs Assessment, A Community Impact Project of United Way of Lebanon County

The United Way of Lebanon County recognized that, despite an excellent quality of life for many, there are persistent social and health concerns for a significant portion of the population. It conducted *The Community Needs Assessment* in 2005 to begin a strategic process for addressing these concerns. The assessment identified affordable, quality housing as one of the ten areas of concern and focuses on the relationship between wages and housing costs and on the contributing economic factors of working individuals and families. These findings include:

- Minimum wage earners can afford a monthly rent of no more than \$268 per month. The fair market rent for a one-bedroom unit in Lebanon County is \$471, according to the Housing Assistance and Resources Program (HARP). The hourly wage in Lebanon that a full-time (40 hours a week) worker must earn to afford a two-bedroom unit at the area's fair market rent is \$11.62.¹ Social Security Income recipients receiving \$579 monthly can afford a monthly rent of no more than \$174. These statistics point to a growing number of people who are unable to find adequate affordable housing in Lebanon County.
- In the United Way Household Survey, 7% of respondents indicated that they have fallen behind or have not been able to pay their rent in the past two years, and 4% indicated the same for their mortgage payments.
- Maintaining employment, and therefore quality housing, depends on other factors. Higher paying jobs some distance from affordable housing, and the cost associated with a vehicle can be a barrier for many individuals. Reliable

¹ National Low Income Housing Coalition.

public transportation is a key factor in providing access to employment. Affordable childcare is also essential to maintaining employment. Many single parents miss significant periods of work, therefore losing wages or even their jobs, due to a lack of childcare or emergency childcare.

- Families without health insurance may be forced to choose between paying medical bills or their rent or mortgage. It is not uncommon for low-income families to receive no health insurance through their employer, yet be over income eligibility limits or on a waiting list for Medicaid or Adult Basic.
- Homelessness was another issue identified in the assessment. The study found that economic stressors, coupled with the lack of an emergency homeless shelter program and the limited availability of affordable housing, have compounded this problem. Lebanon County volunteers participated in the annual federal Housing and Urban Development Street Count in January of 2007 to estimate the number of homeless people and demonstrate the need for an emergency shelter and federal aid. The Patriot News reported that although no homeless persons were found, the bitter cold weather may have been the reason, and HUD may allow another count in warmer months. Though the data to characterize homelessness in Lebanon County is absent, the Lebanon County Community Action Partnership provided more than \$57,000 in rental assistance and more than \$17,000 in motel assistance—evidence that residents would have been homeless without these interventions. Other local organizations, such as the Community Homes at Willow Terrace, are beginning to consider emergency shelter options.

Based on these findings, the project reached the following conclusions.

- The availability of more affordable housing units for rental and purchase is a critical issue.
- There are no public emergency homeless shelter programs for families or individuals who have lost their housing and must have their most basic needs met.
- It is very important to encourage employers in Lebanon County to offer jobs with wages and benefits at a level that allow working people to pay fair market rental prices. In tandem with this, it is essential that the workforce is skilled and educated to meet the demands of these jobs.
- The economic stressors on working families, such as limited access to affordable transportation and the increasing cost of childcare and health insurance, are directly related to the percent of income a household can afford to spend on housing; these issues need to be addressed comprehensively.
- Help is needed for people with behavioral problems that block their access to affordable housing. Philhaven sponsors Partners for Progress, a residential program for homeless persons with mental health disabilities; referrals are only accepted through the county's Mental Health/Mental Retardation office. The

program includes 11 one-bedroom apartments within the City of Lebanon and is managed by a mobile counselor.

3. Comprehensive Market Analysis Reports, Analysis of the Harrisburg-Lebanon, Pennsylvania Housing Market

The U.S. Department of Housing and Urban Development published an Analysis of the Harrisburg-Lebanon, Pennsylvania Housing Market as of October 1, 2005. This report contains valuable data on housing trends that have occurred in Lebanon County and in the Harrisburg-Carlisle and Lebanon Metropolitan Statistical Areas since the U.S. Census of 2000. The following excerpts demonstrate the notable changes the county's housing market has experienced in recent years.

- The average annual number of new households in Lebanon County between 2000 and October 2005, namely 610 households, represents a 55% increase over the average annual number of new households in the county during the 1990s (390 households). The average annual number of single family dwelling permits has increased by 37%, from 490 to 675 permits.
- Construction of townhomes has included affordable new units priced below \$150,000, as well as luxury townhomes priced between \$200,000 and \$250,000. Although vacant rental units increased between 2000 and October 1, 2005, newly constructed apartments continue to be absorbed at a steady pace. Construction of new rental units is expected to continue between 2005 and 2008.
- From 2000 to September 2005, the median price of single-family homes in Lebanon County increased an average of 11.6% annually to \$144,900, according to the Lebanon County Association of Realtors®. During the same period, the number of homes sold in Lebanon County increased an average of 5.5% annually to 1,265 units.
- Lebanon County is becoming increasingly popular because land is available for new construction and existing home prices are relatively affordable compared to neighboring counties. During the early 2000s, average home prices in Lebanon County were significantly lower than in Cumberland and Dauphin Counties.



Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis)

This section presents a strategic assessment of Lebanon County’s housing conditions and trends, considering the current state of the county as well as regional influences. This assessment provides the foundation for housing policies and recommendations that build upon the strengths, improve weaknesses, recognize and seize opportunities, and increase awareness and defend against threats.

Strengths

- **Variety of Housing.** Although single family detached dwellings are prominent in the townships of the county, the boroughs, villages, and the City of Lebanon offer a variety of housing types.

Desirability of Housing.

Lebanon County homes are considered desirable for a variety of reasons. Homes are comparatively affordable to those that exist in neighboring



Dauphin County. Some communities, such as Mount Gretna, offer unique qualities and architectural and artistic attributes in their housing stock. The county is known for a high quality of life that includes a “small town” character, very good schools and community facilities, and recreation opportunities. Furthermore, initiatives such as streetscape improvements and revitalization efforts have increased the appeal of downtown living and entertainment portions in the county.

- **Progressive Approach.** The Lebanon County Planning Department and several municipalities are progressive in their approach to housing and community development issues. Interest in and knowledge of innovative and smart growth development techniques is on the rise.
- **Availability of Housing.** Overall, the county’s vacancy rate is within a healthy range; however, this figure masks a few municipalities with abundant vacancies and numerous communities on the edge of a tight housing market.
- **Lebanon County Housing Programs.** There are several programs that are working in the county to provide housing assistance, transitional housing, and skills to encourage residents to become financially self-sufficient. Furthermore, volunteer and private housing assistance groups are present in the county including Habitat for Humanity of Lebanon County and Bridge of Hope of Lebanon County.

Weaknesses

- **Patterns of Development.** Low density residential development uses are dispersed in subdivisions and roadside strip patterns throughout the county. Development patterns of today are often characterized by separated uses, causing dependency on automobiles, and further separation or distance between homes on large lots, resulting in the rapid consumption of open space. Many practices supporting conventional development, such as zoning regulations, pose significant obstacles to proposing and developing alternative patterns of development that may help the county address demographic, public service and infrastructure concerns.
- **Out-migration from the City of Lebanon and Boroughs.** Although the largest movement to the suburbs occurred in the 1950s and 1960s, migration from the City of Lebanon to surrounding communities in the Cornwall-Lebanon School District continues. This small-scale trend of urban flight is apparent throughout the Route 422 corridor, evidenced by increases in the vacancy rates in the urban areas and new construction in the surrounding townships.
- **Affordability of Housing.** Although the price of housing in the county is affordable for workers of Harrisburg and Hershey employment centers, it is not necessarily affordable to residents working in Lebanon County. Local wages have not kept pace with the increases in the price of housing, making it harder for local workers to find a home that they can afford. As a result, some workers seek residence in less expensive communities outside the county, while established residents travel further to places of employment that offer a higher wage and enable them to afford housing in the county. Regardless, commuting consumes income that would otherwise be available for household, cost of living expenses or leisure expenses.
- **Homelessness.** Homelessness has been identified as a major issue by several studies and stakeholders. Statistics on the severity of homelessness are incomplete at this point; however, community leaders acknowledge that homeless persons are living in the county and recommend that more assistance be directed to them. A homeless shelter is one option proposed by the United Way's Community Needs Assessment.

Opportunities

- **Local Revitalization Efforts Underway.** The northwest section of the City of Lebanon is one of 22 Pennsylvania communities participating in the Blueprint

Communities program, an economic development program that emphasizes a holistic approach to community revitalization and economic development. Local citizens, business owners, public officials, and community service representatives are actively contributing to a concerted and cooperative revitalization effort to improve housing and neighborhoods and pursue opportunities for business growth. They aim to improve conditions for current residents and attract others to available properties. One success story is the revitalization work in Annville Township which has focused on improving the downtown business district with streetscape improvements to increase appeal.

- **Successful Development of Workforce Housing.** Deer Lake Apartments is an example of an affordable housing development that has been well received by the community. The rental apartment community is situated among mostly single family homes and overlooking Lion's Lake in North Lebanon Township. Deer Lake is managed by the Housing Development Corporation, based in Lancaster. Diverse housing types such as Deer Lake help to offer housing that is affordable for the resident workforce in the county.
- 
- **Regional Institutions of Higher Education.** The Lebanon Campus of HACC, Lebanon Valley College and the Lebanon County Career & Technology Center are resources for encouraging innovation and new business activity. Providing attractive and affordable housing opportunities for this demographic will invite educated individuals to stay in the county, and in turn boost the economy.
 - **Next Generation Renovations.** Housing in the county has the potential to serve multiple generations. As resident families grow and mature, their housing needs change. In some instances, residents adapt their homes to meet their needs. In other cases, residents relocate to find housing that better meets their needs. When they relocate, they make their former homes available to new or other relocating residents. As this turnover occurs, new owners frequently make significant maintenance investments and upgrades, which help to sustain or increase the value of the home .
 - **Existing Necessary Infrastructure.** Several locations in the county already have the necessary infrastructure in place to accommodate future growth. Encouraging infrastructure improvements in strategically planned locations can assist in directing new housing growth to the most suitable areas of the county.

Threats

- **External Development Pressures.** Many municipalities in the county are identified as being in the path of growth – from the west, from the east along the I-81/I-78 corridor as well as from the urban core. The housing market will undoubtedly expand. Where this growth will occur and how it will impact housing choices must be managed to protect the quality of life residents know today.

- **Jobs/Housing Balance.** Maintaining quality employment opportunities depends in part on the location of housing. Housing for technical and professional employees is a must for expanding and relocating companies.

- **Perceptions of Affordable Housing.** Affordable housing is not well understood. Citizens often associate affordable housing with crime, drugs, and social instability rather than with housing for the everyday workforce of teachers, police officers, health care workers, and civil servants



These workers are finding themselves “priced out” of the local housing market by the demand created by people who have more disposable income and are relocating from Dauphin, Berks and Lancaster Counties. In addition, negative attitudes toward affordable housing opportunities hinder efforts to provide housing for young professionals, young families, and older families interested in down-sizing their homes.

- **Perceptions of Higher Densities.** Ongoing public opposition to rezoning requests and zoning ordinance amendments to increase densities in existing residential districts supports the continuation of sprawling patterns of development and discourages more compact and cost-effective residential neighborhoods.



Projected Housing Needs

As stated by the Pennsylvania Municipalities Planning Code, municipalities are charged with planning for and accommodating and/or providing housing in a variety of forms, styles, densities, price ranges and locations to house the projected resident population. This responsibility spans the construction of new housing units, as well as the conservation, rehabilitation and reconstruction of the existing housing stock. This section presents the number of housing units needed to house the total populations projected for 2010 and 2020.

Total Housing Needs for 2010 and 2020

Table 12-2 presents the projected number of total housing units needed by 2010 and 2020. Population projections, trends in the average household size, and a vacancy rate were used to project future housing needs at the municipal level and aggregated at the school district and county levels. The total additional housing units needed reflects the need for additional construction, redevelopment or conversion to create additional units.

Table 12-2 Projected Total Housing Units Needed, 2010 and 2020

	Total Housing Units, 2000	Projected Total Housing Units Needed, 2010	Projected Total Housing Units Needed, 2020	Total Additional Housing Units Needed, 2000-2020
Lebanon County	49,320	57,317	63,830	14,510
Lebanon County* (municipal aggregate)	49,320	57,607	64,886	15,566
Annville-Cleona SD	4,459	5,400	6,123	1,664
Annville	1,556	2,199	2,379	823
Cleona	913	966	1,042	129
N. Annville	861	904	933	72
S. Annville	1,129	1,331	1,769	640
Cornwall-Lebanon SD	12,278	14,787	16,475	4,197
Cornwall	1,261	1,675	1,870	609
Mount Gretna	205	147	191	-14
N. Cornwall	2,604	3,073	3,338	734
N. Lebanon	4,234	4,877	5,373	1,139
S. Lebanon	3,030	4,019	4,563	1,533
W. Cornwall	944	996	1,140	196
ELCO SD	6,898	8,680	10,385	3,487
Heidelberg	1,389	1,548	1,733	344
Jackson	2,478	3,626	4,771	2,293
Millcreek	1,090	1,370	1,606	516
Myerstown	1,339	1,498	1,602	263
Richland	602	638	673	71
Lebanon SD	11,566	11,519	11,663	97
Lebanon City	11,220	11,136	11,223	3
W. Lebanon	346	383	440	94
Northern Lebanon SD	5,836	6,882	7,868	2,032
Bethel	1,710	1,917	2,145	435
Cold Spring	25	23	30	5
E. Hanover	1,091	1,303	1,511	420
Jonestown	418	574	599	181
Swatara	1,487	1,817	2,118	631
Union	1,105	1,248	1,465	360
Palmyra Area SD	8,283	10,339	12,372	4,089
N. Londonderry	2,782	3,840	5,046	2,264
Palmyra	3,363	3,529	3,672	309
S. Londonderry	2,138	2,970	3,654	1,516

Source: U.S. Census Bureau, RETTEW Associates, Inc.

The county and municipal projections were based upon their respective data inputs. Municipal projections were then aggregated to determine school district projections and a county level aggregate.

The projections suggest that the county will need between 14,510 and 15,566 new housing units by 2020 to accommodate projected residential growth. The largest number of these homes will be needed in the Cornwall-Lebanon School District, 4,197 units, followed closely by the Palmyra Area School District, 4,089 units. Approximately 3,500 units will be needed in the ELCO School District.

Need for Affordable Housing

Affordable housing must also be considered as a part of future housing needs. Housing is considered to be affordable if a household can afford to rent or buy a habitable dwelling without spending more than 30% of its income on housing and associated costs. Therefore, household income is a primary factor in determining affordable housing values. Some housing specialists characterize affordable housing for moderate-income families as America's workforce housing to distinguish it from housing intended to serve low income populations.²

It is important that an adequate supply of affordable housing units exists in the county to meet the needs of this population. Unfortunately, it is difficult to quantify or even estimate the number of affordable units that exist in the county today, since unit costs for affordable housing units are market-based. Housing unit values as reported by the U.S. Census Bureau may give some indication of the range of costs; however, these values alone are not sufficient since they reflect the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale. Property values determined by assessment can give more current, objective and accurate values; however, Lebanon County's assessment values are extremely out-dated and likely do not reflect current market values. A detailed housing inventory could capture this information, though it would be a time-intensive task.

In lieu of market-value data, the percentage of owner and renter occupied households considered to be in the Extremely Low Income category has been used to project the required amount of affordable housing units, as these households represent the most serious cases in the county, face the greatest risk of becoming homeless, and are the most likely to qualify for HUD sponsored programs.

Table 12-3 projects the number of affordable housing units needed by 2010 and 2020. Like the total housing unit projection, the number of affordable housing units needed was projected for each municipality and for the county as a whole. Municipal projections were then aggregated by school district. The county's municipal aggregate projections differ from the county projection due to the averaging of municipal values at the county level.

Countywide more than 5,000 affordable housing units will be needed by 2020. The largest portion of these units will be needed in the Lebanon School District followed by the Cornwall-Lebanon School District. Affordable housing needs for 2,887 units are concentrated in the City of Lebanon, Annville Township, and Myerstown, Jonestown, and Palmyra Boroughs.

² U.S. Department of Housing and Urban Development

Table 12-3 Projected Total Housing Units and Affordable Housing Units, 2010 and 2020

	2000 Total Housing Units	% of Total Households Classified as Extremely Low Income	Projected Total Housing Units 2010	Total Affordable Housing Units Needed 2010	Projected Total Housing Units 2020	Total Affordable Housing Units Needed 2020
Lebanon County	49,320	9.19	57,317	5,267	63,830	5,866
Lebanon County (municipal aggregate)	49,320	n/a	57,605	5,106	64,886	5,594
Annville-Cleona SD	4,459	n/a	5,400	363	6,123	402
Annville	1,556	9.30	2,199	205	2,379	221
Cleona	913	4.20	966	41	1,042	44
N. Annville	861	6.59	904	60	933	61
S. Annville	1,129	4.28	1,331	57	1,769	76
Cornwall- Lebanon SD	12,278	n/a	14,787	925	16,475	1,028
Cornwall	1,261	3.48	1,675	58	1,870	65
Mount Gretna	205	6.15	147	9	191	12
N. Cornwall	2,604	8.86	3,073	272	3,338	296
N. Lebanon	4,234	6.38	4,877	311	5,373	343
S. Lebanon	3,030	5.20	4,019	209	4,563	237
W. Cornwall	944	6.60	996	66	1,140	75
ELCO SD	6,898	n/a	8,680	565	10,385	668
Heidelberg	1,389	4.99	1,548	77	1,733	86
Jackson	2,478	6.25	3,626	227	4,771	298
Millcreek	1,090	4.71	1,370	65	1,606	76
Myerstown	1,339	10.45	1,498	157	1,602	167
Richland	602	6.06	638	39	673	41
Lebanon SD	11,566	n/a	11,519	2,098	11,663	2,119
Lebanon City	11,220	18.53	11,136	2,064	11,223	2,080
W. Lebanon	346	8.88	383	34	440	39
Northern Lebanon SD	5,836	n/a	6,882	532	7,868	606
Bethel	1,710	7.04	1,917	135	2,145	151
Cold Spring	25	25.00	23	6	30	7
E. Hanover	1,091	6.70	1,303	87	1,511	101
Jonestown	418	11.48	574	66	599	69
Swatara	1,487	7.30	1,817	133	2,118	155
Union	1,105	8.42	1,248	105	1,465	123
Palmyra Area SD	8,283	n/a	10,339	539	12,373	679
N. Londonderry	2,782	4.40	3,840	169	5,046	222
Palmyra	3,363	9.54	3,529	337	3,672	350
S. Londonderry	2,138	2.93	2,970	87	3,654	107

Source: U.S. Census Bureau, HUD, RETTEW Associates, Inc.

These figures reflect a total need for affordable units, including existing and to-be-built homes. Fortunately, many of the smaller, older homes in the county are in sound condition and represent an affordable housing option; other older homes may need renovations. The challenge for existing homes lies in their limited availability. Residents tend to hold on to these affordable homes for long periods of time, making the affordable housing market particularly tight.

New construction may supplement this existing housing stock with units that are smaller, more densely clustered and more modest in design than conventional units in order to provide safe, habitable dwellings at a lower cost; however new units still may not offer an affordable option for extremely low income and other at-risk households in Lebanon County. Efforts to broaden the range of values should examine opportunities to increase the number of affordable housing units for owners and renters, improve their distribution throughout the municipalities and school district regions, and improve market access to those households that need them most.

Fair Share Housing

The PA MPC requires all municipalities or multi-municipal planning regions to provide for all types of housing, including a variety of forms and affordability levels for current residents and expected future residents. To ensure that each municipality is providing for its “fair share” of the various types, styles, and ranges of affordability of housing units, the courts have determined that the percentage of land available for multi-family dwellings is relevant. This percentage must be considered in light of population growth pressures within the community and the county, and in light of the total amount of undeveloped land in the community. Where the amount of land for multi-family dwellings is disproportionately small in relation to the above factors, the municipality will be held to be exclusionary.

In evaluating and ruling on fair share cases, Pennsylvania courts have established a distinction between zoning ordinances which fail to provide for a use (“de facto” exclusion), and those which provide for a use but allocate insufficient area for it, creating a “token” provision which results in “de facto” exclusion . The leading cases on fair share, such as Surrick v. ZHB of Upper Providence Township, have tended to deal with “de facto” exclusion and the court rulings on these cases have established the basic criteria, which now serve as the framework for a fair share analysis. Thus, these criteria can be used as a guide for evaluating a municipality’s or region’s fair share standing. The legal cases cited below explain these criteria.

Surrick v. ZHB of Upper Providence Township, 476 Pa. 182, 382 A.2d 105 (1977)

The Pennsylvania Supreme Court used this case to outline a number of factors it considered basic to the evaluation of a community’s ability to provide for its fair share of growth and development. In this case, the question was whether the community was providing its fair share of land zoned for multifamily dwellings or if it was providing only a “token” or disproportionately small amount for this use. The court’s decision stated that, at a minimum, the following factors should be considered:

- **Path of Growth**, i.e. whether or not the community is located in a logical area for population growth and development based on its proximity to large developed areas and projected population growth figures.
- **Present Level of Development**, i.e. current population density, amount of undeveloped land, and the proportion of undeveloped land available for development of multifamily dwellings (or some other housing type).
- **Present Development vs. Path of Growth**, i.e. comparison of anticipated future growth and the amount of undeveloped land allocated for multifamily development (or some other housing type).

Appeal of Silver, 387 A.2d 169 (Pa. Commonwealth. 1978)

In this case, the Commonwealth Court expanded upon the “Surrick Analysis” to include two other factors:

- **Potential Development and Density**, i.e. the number of multifamily dwellings that could be accommodated on the allocated land.
- **Existing and Potential Dwelling Unit Ratio**, i.e. the ratio between multifamily units (MFU) and single-family detached units (SFD). If the ratio increases at a buildout under existing zoning, for example from 1 MFU per 10 SFD to 1 MFU to 6 SFD, then the community’s fair share is improved.

Determination of “Fair Share”

The courts apply two methodologies in determining whether a municipality or region satisfies its fair share needs. For the purposes of this analysis fair share uses include: single-family attached units, also known as duplexes or twins, and townhouses, multifamily units (apartments), and mobile home parks.

- **Test #1** examines the amount of land zoned for fair-share uses and compares it to the total land area of the region (gross acres).
- **Test #2** examines the ratio of fair share units to single-family detached units to determine if they are substantially unequal. If so, the courts will examine whether or not current zoning will permit the ratio to improve at buildout.

Examples of cases in which these two methodologies have been applied include:

- *Warwick Land Development Corp. v. Board of Supervisors of Warwick Township, 376 A.2d 679 (Pa. Commonwealth. 1977).*
- *Williston Township v. Chesterdale Farms, Inc., 341 A.2d 466 (1975).*
- *Cambridge Land Company v. Marshall Township, 560 A.2d 253 (Pa. Commonwealth. 1989).*
- *Appeal of M.A. Kravitz Co., Inc., 460 A.2d 1075 (Pa. 1983).*
- *Hostetter v. N. Londonderry Township, 437 A.2d 806 (Pa. Commonwealth. 1981).*

- Caste v. Whitehall Borough AZB, 453 A.2d 69 (Pa. Commonwealth. 1982).

Alternatives for Meeting Housing Needs

Conservation, Rehabilitation, and Redevelopment of Existing Housing Stock

Quality housing, of sound construction and maintenance, contributes to a healthy, vibrant community. Quality housing attracts residents to available homes, protects citizens from unsafe living conditions, sustains property values and helps to attract and retain employers. A lack of quality housing can depress the local housing values and sales, increase illness and injury rates, and deter economic and other private sector investment.

Quality is an essential component to any structure or new construction project, whether it is part of an addition or renovation project or new home. New construction looks new but may lack sound construction under a new, untarnished exterior. Without adequate maintenance, existing structures deteriorate over time. Ongoing efforts are needed to keep the exterior weather-resistant and to protect the structural integrity of the building itself.

Established communities – particularly those in the path of growth – can sustain and enhance their housing and neighborhoods through a housing revitalization approach, which typically comprises three types of techniques: conservation, rehabilitation, and redevelopment. These measures enable communities to maintain established neighborhoods with lower priced housing for first-time homes buyers, young singles and families, and older families down-sizing their housing needs among others looking for affordable housing options.

Conservation of Existing Housing

This technique is directed toward the prevention of blighted conditions and should be applied to those areas of the county with little or no existing blight. Conservation involves continued maintenance of structures and properties, such as updating plumbing and electrical facilities to address other health and safety issues, as well as the installation of weather proofing improvements to reduce energy dependency, and enforcement of housing and/or building code standards to both owner and renter occupied units.

Rehabilitation

This technique is directed toward the revitalization of deteriorated areas into sound, healthy neighborhoods. Repair and renovation of deteriorating structures can be targeted to a small area, such as a street or block, or to an entire neighborhood.

An area wide renovation and rehabilitation plan can determine which course of action is appropriate. Community Development Block Grant money can be used for housing rehabilitation.

Blueprint Communities

Blueprint Communities is an economic development program sponsored by the Federal Home Loan Bank of Pittsburgh with the University of Pittsburg and several nonprofit, state, and federal agencies. Blueprint Communities is designed to catalyze revitalization in older communities and neighborhoods. It emphasizes a comprehensive approach to community development and encourages communities to approach revitalization holistically, taking into account physical, economic, and social needs. Communities that are accepted into the Blueprint Communities program provide volunteers who receive extensive training on revitalization techniques, housing capacity, civic engagement, planning, and communication, among other assets. Community representatives work on teams to develop a vision, draft community plan, clear action strategy (including a funding strategy) a process to measure outcomes, and a list of next steps to move the process forward. The northwest section of the City of Lebanon is one of 22 Pennsylvania communities in the program.

Redevelopment

This technique replaces severely blighted properties with new housing units. Redevelopment can be led by public authorities or by the private development sector. In either leadership scenario, the developer acquires a property or properties, removes unsafe structures and conditions, rehabilitates remaining structures and develops new buildings that blend into the character of the existing neighborhood. In some cases, a redevelopment project may begin as a public project to assemble the properties into a marketable cluster that is then sold to a private developer. The sale may be contingent upon the developer's agreement to improve the property in accordance with an approved plan. This method, though costly and time consuming, is the most comprehensive method of renewing blighted neighborhoods.

Zoning and Subdivision and Land Development Policy

Growth Management Policies

Many growth management policies can improve the supply and location of affordable housing and accommodate other development needs, thereby increasing the desirability of the community and thus the price of housing. When crafted properly, growth management programs break the chain of exclusion by incorporating policies that increase housing densities, stimulate a mix of housing types and promote regional fair share housing or other inclusionary elements.

Capacity for Future Housing

The *Land Use Profile* presents a detailed inventory of developed and undeveloped lands. The profile analyzes the development potential of undeveloped lands based on the individual municipal zoning provisions and existing and planned utility services. Details of this analysis related to the potential for future housing, or residential units, are shown in Table 12-4.

Current zoning and utility extensions planned through the year 2020 would allow for the development of 11,058 high density units, 6,976 medium density units and 8,736 low density units, a total of 26,770 units in residential zoning districts. Of the potential high

density units, 95% have public water and/or public sewer or will have such utilities by 2020. Of the potential medium density units, 75% have public water and/or public sewer or will have such utilities by 2020.

There is additional potential for 71,552 units outside utility service areas, bringing the total capacity for residential units to 98,322. This condition of extensive development potential outside residentially zoned lands is true of all school district regions; the Palmyra region is the only region with greater capacity within its residential districts (57% of total capacity) than outside of them (43% of total capacity).

Countywide, the capacity provided by zoning and utility planning far exceeds the projected housing need of approximately 15,500 units through the year 2020. Specifically, there is capacity for nearly twice as many housing units in a range of high, medium, and low density types within the existing and planned utility service area. There is clearly no need to increase the quantity of residentially zoned land. In fact, such wide ranging opportunities for residential development outside of residential districts may result in unnecessary development pressure on valuable farmlands, woodlands and other open spaces. Such pressure can be managed by redirecting growth toward existing communities and community service areas, as well as through alternatives to conventional 1-acre lot residential subdivisions.

Table 12-4 Capacity for Future Residential Units on Undeveloped Lands

	<i>Utilities</i>			<i>Total</i>	<i>Percent of total residential unit capacity</i>
	<i>Water and Sewer (existing)</i>	<i>Water or Sewer (existing or planned)</i>	<i>On-lot well / On-lot septic system</i>		
High Density Units	4,754	162	82	4,998	5.1%
	95.1%	3.2%	1.6%		
Medium Density Units	1,505	365	129	1,999	2.0%
	75.3%	18.3%	6.5%		
Low Density Units	4,799	6,449	8,525	19,773	20.1%
	24.3%	32.6%	43.1%		
Subtotal capacity for residential units in residential zoning districts	11,058	6,976	8,736	26,770	
Percent of subtotal	41.3%	26.1%	32.6%	100.0%	27.2%
Non-residential zoning that allows residential uses (agriculture, conservation, commercial)				71,552	72.8%
Total capacity for residential units				98,322	100.0%

Alternatives to Conventional Residential Development

Based upon discussions with municipalities and the Lebanon County Planning Department, alternatives to conventional 1-acre subdivision and residential development are permitted in the county. Many of the municipal zoning ordinances in the county

permit planned residential developments or PRDs. PRD provisions allow variation in dimensional and use requirements to achieve the preservation of sensitive natural areas or historic sites. This is typically accomplished by permitting development to be shifted to more appropriate portions of the site. Within the zoning ordinance, the municipality must specify where PRDs are permitted, the uses to be allowed and standards for density of development. The submission and review procedures and design standards, e.g. for roads, are typically regulated by the subdivision and land development ordinance.

South Annville Township has developed guidelines to encourage open space and greenways in developments near the Annville-Cleona High School complex. The guidelines are similar, but less stringent, to those set forth in the Conservation by Design technique. As applied, a base density of 3 units per acre is permitted, with 3.5 units per acre permitted with design incentives. The amount of open space required is 35%; only 30% is required with design incentives. South Annville's guidelines designate flood plains and drainage courses as mandatory greenways connecting to the school property, and allow flexibility in the placement of additional greenways. All of the greenway trails are to be improved to encourage use.

Jonestown Borough has worked with the Lebanon County Planning Department to allow for a mix of residential uses including some smaller, starter home designs, within the Twin Creeks development. This development is also preserving flood prone areas for recreational use and installing a trail system to connect the development to recreational facilities elsewhere in the borough, as well as the nearby elementary school.

Removing Barriers to Affordable Housing

Housing prices are determined by a series of interacting factors including the price of land, the supply and types of housing, the demand for housing, and mobility in the area. Therefore, the assumption that growth management policies drive up the cost of housing is too simplistic and not always accurate. Selected regulatory barriers to affordable housing and potential solutions are listed in Table 12-5.

Market Demand

Market demand, not land availability, is the primary determinant of housing prices. The strength of the housing market is the most important influence on housing prices, regardless of whether growth management programs are present or not. The effects of growth management policies on housing prices are difficult to itemize because of the variations in policy and implementation, the structure of local housing markets, the patterns of land ownership, and the stringency of other local regulations. Research on the effects of urban growth boundaries suggests that while growth boundaries can affect land values, their effect on housing affordability is unclear.

Conventional versus Contemporary Land Use Regulations

Conventional zoning and other land use controls can limit the supply and accessibility of housing, thereby raising home prices and excluding lower income households. These policies include low density requirements, minimum housing size, and limiting of attached homes. Contemporary regulations can facilitate the construction of affordable housing. Examples of such regulations include the following:

- Planned Residential Development (PRD) – An area of land, controlled by a landowner, to be developed as a single entity for a number of dwelling units, or combination of residential and nonresidential uses.
- Conservation by Design – Allows for a mix of housing types with the same net density as traditional subdivisions with 50% or more of the land set aside for open space.
- Traditional Neighborhood Development (TND) – An area of land for a compatible mixture of residential units for various income levels and nonresidential commercial and workplace uses, including some structures that provide for a mix of uses within the same building
- Inclusionary Zoning – Requires developers to make a percentage of housing units in new residential developments available to low and moderate income households. In return, developers receive non-monetary compensation in the form of density bonuses, zoning variances, or expedited permits that reduce construction costs.

Model ordinances can be found in *Appendix III*.

Table 12-5 Regulatory Barriers and Solutions to Affordable Housing

<i>Barriers</i>	<i>Solutions</i>
<i>Supply of Land, Affordable Housing Types, and Design Standards</i>	
<p>1 An insufficient amount of land in the Commonwealth is zoned for medium density (4-8 units/acre) and high density (9 or more units/acre) residential development to meet housing needs</p>	<ul style="list-style-type: none"> • Zone a greater amount of land for medium and high density residential development. • Rezone land to allow differing types of residential structures and to allow mixed use districts. • Reduce or eliminate the minimum site size for PRDs and conservation subdivision designs. • Reduce or eliminate minimum floor area requirements and promote flexibility in establishing criteria for minimum floor area requirements.
<p>2 Zoning favors conventional site design rather than cluster design techniques which can be more cost effective by reducing the amount of infrastructure needed.</p>	<ul style="list-style-type: none"> • Allow PRDs and conservation subdivision designs at higher densities and without special exception or conditional use requirements. • Reduce or eliminate large minimum lot sizes for PRDs and conservation subdivision designs.
<p>3 Lot dimensions such as frontage, front setbacks, and side yard requirements can be excessive and add unnecessary cost while operating as a redundant density control.</p>	<ul style="list-style-type: none"> • Reduce lot frontage and effectually reduce costs for paving, storm water control, and utility installations • Reduce excessive front setbacks and thereby reduce costs for paving, service lines, site clearance, and landscaping • Allow zero lot line and patio and atrium houses on smaller lots which can reduce costs and still provide amenity.

Table 12-5 Regulatory Barriers and Solutions to Affordable Housing
(continued)

Barriers	Solutions
Supply of Land, Affordable Housing Types, and Design Standards	
<p>4 Excessive street widths and construction standards, which are often unrelated to expected uses, can be required in subdivision ordinances</p>	<ul style="list-style-type: none"> • Tailor development standards for streets to expected use or size of development, thereby reducing the cost of other improvements
<p>5 Developers may need incentives to produce affordable units and to encourage infill development on vacant tracts.</p>	<ul style="list-style-type: none"> • Award density bonuses for construction of affordable housing units at controlled, below market rate prices, and for infill development of vacant tracts. • Award density bonuses for rehabilitation of existing substandard housing provided the bonus units are available for low and moderate-income persons.
<p>6 Parking standards can consume more land than necessary, especially in multifamily developments</p>	<ul style="list-style-type: none"> • Reduce the size of a percentage of the stalls to accommodate smaller compact cars. • Different parking standards apply depending on the type and location of development. The following is a list of resources that the County can rely upon to address parking concerns. <i>Parking Standards</i> is a commonly used publication which lists acceptable standards for a large variety of uses. • <i>Dimensions of Parking, 4th ed.</i> ISBN 978-0-87420-827-6 • <i>Parking Management Best Practices</i>, Todd Littman. Published by APA Planners Press, 2006 • <i>High Cost of Free Parking</i>, Donald Shoup. Published by APA Planners Press, 2005 • <i>Effective Community Parking Standards</i>, APA Education, Lincoln Institute of Land Policy. Published by APA Education, 2001 (Audio) • <i>Parking Standards (PAS 510/511)</i>, Michael Davidson, Fay Dolnick. Published by APA Planning Advisory Service, 2002 • <i>Aesthetics of Parking (PAS 411) An Illustrated Guide</i>, Thomas Smith. Published by APA Planning Advisory Service, 1988

Table 12-5 Regulatory Barriers and Solutions to Affordable Housing
(continued)

Barriers	Solution
Supply of Land, Affordable Housing Types, and Design Standards	
<p>Many zoning ordinances limit affordable housing</p> <p>7 opportunities for one and two person households and elderly households</p>	<ul style="list-style-type: none"> • Revise zoning provisions in select areas to facilitate conversion or alteration of an existing single family dwelling into two residential units (an accessory apartment) subordinate to the primary dwelling, or into two or more residential units (residential conversions) • Allow the addition of a single, small elder cottage to a single family lot to be used by either elderly or disabled family members related to the occupant of the principal dwelling and to be removed from the property when no longer occupied. • Adjust zoning ordinances to allow establishment of in-law quarters within existing single family dwellings. • Allow shared housing group homes for foster children, the developmentally and mentally disabled, and the elderly by right in all districts where single family dwellings are permitted.
Application Processing	
<p>1 Lack of uniformity among land use ordinances adds time and increases costs to developers.</p>	<ul style="list-style-type: none"> • Publish advisory guidelines to promote general consistency with the adopted county comprehensive plan and promote uniformity with respect to municipal planning and zoning terminology. • Countywide zoning and subdivision ordinances help to promote uniformity of standards and create cost effective, professional administration of the ordinances. • Encourage joint municipal planning and zoning.
<p>2 Medium and higher density housing developments usually encounter more red tape in the application process.</p>	<ul style="list-style-type: none"> • Allow more land for higher density uses by right. • Allow various types of multifamily structures by right
<p>3 Good community design needs to be actively promoted.</p>	<ul style="list-style-type: none"> • Sponsor educational seminars on good design techniques • Offer assistance in the design process

Source: Pennsylvania Department of Community and Economic Development, Lebanon County Planning Department

Interrelationships of Housing to other Elements of the Comprehensive Plan

Growth, Land Use and Housing: The Path of Development

Lebanon County is experiencing strong development pressure from eastern and western fronts, the I-81/I-78 corridor, and its urban core, as described below.

The Harrisburg-Hershey Influence on the Palmyra Area School District Region

Municipalities in the Palmyra Area School District are experiencing development pressures from the west. Since 1990, the Palmyra Area School District has experienced the largest increase in population. This growth has occurred, in part, as a result of service and employment expansions at the Penn State Hershey Medical Center (HMC) and throughout the Harrisburg-Hershey area. As employers such as HMC continue to expand, more jobs are created and more residents are drawn to the region.

When cost-conscious prospective residents consider housing options, they find that the cost of homes and property taxes are both substantially higher in Derry Township than in western Lebanon County. Until recently, houses in western Lebanon County were more modest in size than those in Derry Township. However, recently constructed homes in North and South Londonderry Townships are beginning to resemble those typical of Derry Township, with similar asking prices.

Commercial and residential development has occurred along PA 39 and US 22 in West Hanover and East Hanover Townships, Dauphin County in recent years. As regional growth continues and new gaming services are introduced at the Penn National Racetrack, East Hanover Township, Lebanon County can expect additional development pressures in the future. Since infrastructure is not widely available in East Hanover Township, such pressure will likely be less intensive than that in North and South Londonderry Townships.

Pressure from Reading/Berks and Philadelphia on the ELCO School District Region

The eastern portion of the county, predominantly Jackson and Millcreek Townships, is facing development pressure as rural-minded residents from suburban Reading and suburban Philadelphia relocate to the quiet countryside of Lebanon County. Much of this immigration has included retired and senior adults. Eastern Lebanon County provides a lower cost of living and a slower, less congested way of life than many locations in southeastern Pennsylvania.

Strong Out-Migration from the City of Lebanon to the Cornwall-Lebanon School District Region

Although the largest movements to the suburbs occurred in the 1950s and 1960s, many residents continue to relocate from Lebanon City to the Cornwall-Lebanon School District. Population projections indicate that South Lebanon Township, North Cornwall Township and Cornwall Borough are expected to grow their population through 2020.

This predicted influx of residents will necessitate an increase in housing units in the Cornwall-Lebanon School District.

Interstate Access in the Northern Lebanon School District Region

The Northern Lebanon School District is projected to grow by more than 2,600 residents by 2020. Nearly half of this population growth is projected to occur in Swatara Township – an increase of more than 1,200 residents from 2000 to 2020. The region’s anticipated growth is a direct result of its location along Interstates 78 and 81, as well as Routes 22 and 72, enabling residents to travel in any direction via a major highway in minimal time.

Housing and the Economy

The housing market and development choices have a direct effect on Lebanon County’s economic situation. Consumer preference and public policy at various levels of government have played a significant role in the changing development patterns that have occurred over the past century. Development patterns of today are often characterized by a separation of uses, auto dependency, and the rapid consumption of open space in suburban and ex-urban areas. In rural areas, formerly robust agricultural economies have been threatened by the encroachment of subdivisions. Many of the practices supporting this type of development pattern such as zoning regulations, subsidized infrastructure and transportation networks, and a lack of regional planning, pose significant obstacles to devising alternatives.

In addition to the barriers to affordable housing that were described previously, there are indirect impacts on the county’s economy as well. The price tag for building the infrastructure necessary to accommodate new developments in low density areas places a higher burden on the taxpayers and local governments than it would in higher-density areas. To the extent that new job growth takes place primarily on the suburban fringe rather than in the central business districts, a regional mismatch emerges that distances many workers from jobs, thereby increasing commuting costs and creating an added challenge for businesses. The costs associated with longer commutes and the growing reliance on private transportation also create additional household expenses.³

Just as the housing market and housing affordability and availability have direct effects on the economy of Lebanon County, the economic stability of the county has a direct influence on the housing market. Lebanon County’s economy has evolved from what was once an economy primarily based on agriculture, to one that was based on mining and steel production between 1840 and the 1970s. Over the past 30 years, Lebanon County’s economy has been in a state of transition and diversification. Today, manufacturing, retail trade, and a variety of service industries are leading employers in the county; utilities services, health care, and social assistance also account for a significant portion of total employment. The percentage of Lebanon County residents traveling outside the county for employment increased between 1990 and 2000 by 24.2%. The total travel time to employment also increased in Lebanon County, as it did in surrounding counties. Attracting and maintaining diverse employment opportunities within Lebanon County, and matching these opportunities with an appropriately skilled workforce are crucial to

³ Affordable Housing and Smart Growth, Making the Connection, Smart Growth Subgroup on Affordable Housing, 2001; available at www.neighborhoodcoalition.org.

maintaining and advancing the local economy. In order to sustain a skilled workforce, it is necessary that housing opportunities exist that correlate with their income level in terms of price, size, and location, and that the employment opportunities provided within the county are those which grant a salary that can bear the costs of housing in the area.

Workforce Housing In Lebanon County

Deer Lake is an affordable rental apartment community situated among mostly single family homes and overlooking Lion's Lake in North Lebanon Township. Income limits apply to all applicants and the community maintains an active waiting list. The apartments feature appliances, private entrances, patios or balconies and other amenities. The community has a community center with kitchenette and play lot for residents' use and on-site management and maintenance. Deer Lake is managed by the Housing Development Corporation, whose headquarters are in Lancaster.

Deer Lake Apartments was one of four affordable workforce housing developments included in a nationwide study by the Fannie Mae Foundation and Peter D. Hart Associates. The study sought to understand more about how America's public perceives workforce housing developments, and whether those perceptions change after a development has been established near their home. A survey polled 310 people in North Lebanon Township and results showed that despite facing intense adversity during the development stages, Deer Lake Apartments has become generally well received by its neighbors.

Considering the balance between the number and types of jobs and the number and types of housing opportunities in conjunction with the population projections for the county will provide a key determinant of the future residential housing needs in Lebanon County. Having too few of either jobs or homes can increase infrastructure and cost burdens on transportation, employment, and tax revenue problems.

The benefits associated with a healthy balance between the number of jobs and the number of households within the community include:

- Reduced commuting times and travel costs for workers
- Increased municipal property, income and business tax revenue from business properties
- Increased support for local employers seeking local workers

The Changing Demographics of Housing Needs

The Growing Senior Population

Pennsylvania's population is aging statewide and Lebanon County is no exception. People are living longer, healthier lives. Over the next 15 to 20 years, many baby-boomers will be reaching ages that designate them as "senior" citizens. As seniors retire from their working lives, they often transition to a lifestyle characterized by more leisure time and potentially capped income. Some may continue living in their homes, but others will seek housing that better suits their lifestyle and/or health care needs.

Senior housing choices, including private housing units (owner occupied or subsidized), elder cottages, independent living, assisted living (personal care home), long-term care nursing facilities and life care communities, are important now and will continue to be important in the future as the number of people in the senior age group increases. The services seniors rely on, such as the VA Hospital, Good Samaritan Hospital, and various medical offices, are generally concentrated in the Cornwall-Lebanon School District, which explains why the district has a relatively large number of senior residents. The Lebanon Valley Brethren Home in North Londonderry and the Evangelical Congregational Church Retirement Village in Myerstown explain higher numbers of seniors in these communities. As the senior population increases in these communities and across the county, the need for senior housing choices as well as for additional services including transportation and health care services will grow, and participation in programs such as Meals on Wheels that directly serve senior citizens may rise.

Retaining Youth and Young People

Increases in enrollment at Lebanon Valley College (LVC) resulted in a relative increase in the percentage of college age individuals in the Annville-Cleona School District. It is vital that adequate housing opportunities are provided for this segment of the population in light of the potential economic and community revitalization effects they have on the county as a whole. Providing services and housing for the college age group and recent college grads will encourage these highly skilled and educated individuals to stay in the county and contribute to community and economic vitality through their taxes and local spending. The Lebanon Campus of the Harrisburg Area Community College (HACC) also affords rationale for providing housing opportunities for college age students and young workers and their families in the City of Lebanon. HACC's commuters could become Lebanon's next generation of residents if nearby housing opportunities for college age students were made available.

Revitalization efforts in the City of Lebanon and streetscape improvements along Route 422 in Annville Township have the potential to stimulate revitalization in other areas of the county. Efforts such as these increase the appeal of these downtown destinations. Amenities such as the farmers market in the City of Lebanon and the Allen Theater and MJ's Coffee House in Annville, are the kinds of leisure and entertainment attractions that younger citizens, as well as others, consider when choosing a place to live.

The Action Plan

The Housing Action Plan identifies a variety of actions for the county and its partners to undertake or to support in order to meet housing needs in the county. The set of actions addressing revitalization, rehabilitation, and redevelopment of deteriorating neighborhoods throughout the county are perhaps the single most important element of this Action Plan.



Together, these actions help to address homelessness and housing affordability while encouraging investment in areas of the county where infrastructure exists. Another essential set of actions is aimed at establishing growth areas and density goals. The remaining actions encompass various other means to increase knowledge, understanding, and collaboration between the many players in the county to work towards solutions for sound, reliable, and affordable housing that accommodates the diverse mix of residents in the communities of Lebanon County.

The Action Plan begins with an overview of the strategic framework of the plan. That is, the goals and objectives that the plan will ultimately help to achieve. This is followed by the set of recommended action items. Recommendations are presented in the recommended order of implementation under each objective. Annual priority-setting may adjust this order based on public support, available funding or other time-sensitive criteria. For recommendations that list “municipalities” as lead partners, the county will need to offer technical assistance to guide municipalities to the relevant data and tools for decision-making and to appropriate funding sources. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are included.

Vision, Goal and Objectives

Before a plan is set forth, it is important to have a clear and concise vision of what the future housing stock of Lebanon County should provide for its residents. This vision should reflect choices in housing type, location, and costs that are sustainable for the community. The plan's goals must then set the direction for change and present associated objectives that outline the actions the county and its partners should take to accomplish these objectives, ultimately meeting the housing needs of a vital, growing and livable community.

Vision

Lebanon County's varied housing opportunities and unique neighborhoods foster livable communities for all residents. From modern apartments to duplexes/twins and townhomes, to mobile homes, to farm houses and single family homes, residents can find a variety of home sizes and styles. Older homes in the city, in boroughs and villages, or in the rural countryside lend defining character to each neighborhood or landscape. Strategic investments in infrastructure and public spaces help to refresh older neighborhoods, keeping them attractive and livable. Newer homes fit into their neighborhoods, whether urban, suburban, or rural countryside, by patterning orientation, setbacks, building heights and materials after existing homes. Newer neighborhoods include new parks and public spaces and interconnect nearby destinations, such as stores and schools, with sidewalks and trails. Planners, developers, and the local real estate market recognize that age and condition, type and size, location and amenities all contribute to housing costs. Through sound maintenance, revitalization, and careful new construction, Lebanon County communities offer real housing choices for all residents.

Goal

Lebanon County provides a wide range of housing types and affordability throughout the county at appropriate densities based on identified growth areas, access to health and human resources, shopping, employment opportunities, utilities, transportation systems, public transit, and walkability. In conjunction with growth management, growth targets for residential uses are defined as follows:

- At least 80% of new growth will be targeted to areas served by public infrastructure.
 - 25% of this growth will be targeted to the downtown areas principally located in the City of Lebanon, the boroughs and first class townships.
 - 55% will be accommodated in suburban or village areas with existing or planned public infrastructure.
- No more than 20% of new residential growth will be accommodated in areas of the county which are not currently serviced by infrastructure or have no new infrastructure development currently planned.

Achieving these residential development targets is possible, as shown by the abundant capacity for residential units within existing and planned utility service areas in the build-out analysis. Much of this capacity lies in utility-served or to-be-served township lands adjacent to the boroughs and first class townships, as proportioned above. Therefore, these areas will likely need to plan for and promote neighborhood densities higher than 1 unit per acre in these areas to achieve the targets.

Objectives

- A. Promote residential growth compatible with land use policies and existing and planned public infrastructure.
- B. Support and incentivize housing diversity and affordability for all residents.
- C. Encourage efficient design, layout flexibility and quality construction in residential development.
- D. Encourage conservation, rehabilitation, and redevelopment of deteriorating neighborhoods.
- E. Coordinate and consolidate housing programs to meet current needs and address homelessness.
- F. Continue to monitor housing trends, market changes and programs, document data in GIS, and communicate findings with municipalities and school districts.

Recommendations

Goal 1:	Provide a wide range of housing types and affordability throughout the county at appropriate densities based on identified growth areas, access to health and human resources, shopping, employment opportunities, utilities, transportation systems, public transit, and walkability.
Objective 1A:	Promote residential growth compatible with land use policies and existing and planned public infrastructure.
Action 1A1:	Establish the following density targets in conjunction with municipalities: <ul style="list-style-type: none"> • 6.5 dwelling units per acre in areas served by public infrastructure. • 1 dwelling unit per 1.5 acres in areas not served by public infrastructure.
Intended Outcome:	Livable communities with a variety of housing choices for all income levels.
Time Horizon:	Initiate in 2008-2009 and continue throughout plan implementation and municipal planning and plan updates
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	County School Districts; Lebanon County Builders Association
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP)

Action 1A2:	Sponsor educational seminars for municipal officials and the developers on good housing policy and design techniques.
Intended Outcome:	Encourage more innovative and efficient design that creates a variety of housing opportunities. Provide technical assistance in exploring, adopting and implementing innovative design techniques and conducting responsive public outreach.
Time Horizon:	Initiate in 2008-2009 as municipal plans and plan updates are prepared
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon County Builders Association; Realtors; Developers; Engineers; Designers; 10,000 Friends of Pennsylvania
Funding Sources:	Municipalities; PA DCED Community Revitalization Program; PSATS
Action 1A3:	Meet with local builders' association, realtors, developers etc., to gauge interest in various housing initiatives.
Intended Outcome:	Good design in new construction that is supported by county and municipal planning agencies as well as developers and builders.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon County Builders Association; Realtors; Developers; 10,000 Friends of Pennsylvania
Funding Sources:	Municipalities; PA DCED Community Revitalization Program; PSATS
Action 1A4:	Encourage the use of innovative development techniques by right as appropriate to downtown, suburban and rural areas, e.g. Traditional Neighborhood Development (TND) and Transit Oriented Development (TOD) in downtown and suburban areas, and Conservation by Design, Planned Residential Developments (PRD).
Intended Outcome:	Compact neighborhood development that fosters livable communities. To allow for innovative and well planned developments while preserving sensitive natural or historic features.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	Lebanon County Builders Association; 10,000 Friends of Pennsylvania
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP); Natural Lands Trust; Ben Franklin Partnership

Action 1A5: Expand the use of Office/Apartment districts to co-locate housing and employment opportunities.	
Intended Outcome:	Employment resources located in proximity to housing opportunities.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	Local businesses; Chamber of Commerce; LVEDC; Lebanon County Builders Association
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Main Street Program; Elm Street Program; Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP)

Action 1A6: Encourage the use of multi-use structures such as first floor commercial/retail uses with upper floor loft apartments.	
Intended Outcome:	Commercial and retail establishments located within walking distance of housing units, promoting walkability and providing a customer base for local businesses, supporting economic viability.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities; Lebanon County Builders Association
Support Partners:	Lebanon County Planning Department; Local businesses; CLA; Chamber of Commerce
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Main Street Program; Elm Street Program; Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP)

Objective 1B:	Support and incentivize housing diversity and affordability for all residents.
Action 1B1:	Review and guide increases in land acreage zoned for medium and high density residential uses in areas where infrastructure exists and has the capacity to accommodate new development.
Intended Outcome:	Compact growth that encourages housing for a range of household incomes.
Time Horizon:	Initiate in 2008-2009 as municipal plans and plan updates are prepared and continue through 2010-2011 as municipal ordinances are updated
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Subject property owners
Funding Sources:	Municipalities; Private developers
Action 1B2:	Provide model inclusionary or inclusive zoning provisions. Such provisions would require major residential developments to include multiple housing types and would be reviewed, revised, and adopted by municipalities as a zoning ordinance amendment.
Intended Outcome:	To foster the development of affordable housing in suburban and urban communities.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities; Lebanon County Builders Association
Support Partners:	Lebanon County Planning Department; DCED Governor's Center for Local Government Services; HDC and private affordable housing development corporations; 10,000 Friends of Pennsylvania
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Core Communities Housing Program; Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP); HUD

Action 1B3:	Encourage the use of Elder Care Housing Opportunities (ECHO), "Granny Flats", or accessory units/apartments where appropriate.
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Intended Outcome:	Increased housing options and cost effective solutions for senior citizens and their family members.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities; Lebanon County Builders Association
Support Partners:	Lebanon County Planning Department; Lebanon County Area Agency on Aging; Community Homes
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Main Street Program; Elm Street Program; Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP); Housing and Redevelopment Assistance Program (HRA); Core Communities Housing Program

Action 1B4:	Recognize manufactured homes as an affordable housing choice and promote well-designed manufactured home communities.
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Intended Outcome:	Increased awareness of manufactured homes as a viable option for low to moderate income residents.
Time Horizon:	Ongoing throughout implementation of the plan
Lead Partners:	Lebanon County Housing and Redevelopment Authority; Municipalities
Support Partners:	Lebanon County Planning Department; Manufactured Housing Association
Funding Sources:	Municipalities

Objective 1C:	Encourage efficient design, layout flexibility and quality construction in residential development.
Action 1C1:	Review minimum lot sizes, lot widths and setbacks in areas served by public infrastructure. Reduce where sufficient capacity exists or is planned to accommodate higher density development.
Intended Outcome:	Increased efficiency in the use of the land and the potential for more affordable housing units.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department
Funding Sources:	Municipalities
Action 1C2:	Promote consistent building code enforcement.
Intended Outcome:	Well constructed housing with decreased maintenance and safety issues.
Time Horizon:	Ongoing coordination with local officials
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; PA Department of Labor and Industry; Lebanon County Builders Association
Funding Sources:	Municipalities
Action 1C3:	Revise regulations to encourage and require neighborhood amenities such as sidewalks, walking and biking trails, and streetscapes appropriate to urban, suburban, and rural areas.
Intended Outcome:	Increase ease of development without compromising important regulations.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates, as well as in coordination with the TIP and Long Range Transportation Plan
Lead Partners:	Municipalities; Lebanon County Builders Association
Support Partners:	Lebanon County Planning Department
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Main Street Program; Elm Street Program; Local Municipal Resources and Development Program (LMRD); Community Revitalization Program (CRP); Urban Development Program (UDP); Community Development Block grants

Objective 1D:	Encourage conservation, rehabilitation, and redevelopment of deteriorating neighborhoods.
Action 1D1:	Provide a model property maintenance ordinance with provisions for rental unit inspections.
Intended Outcome:	Improved safety and maintenance on properties.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP)
Action 1D2:	Provide model provisions for Neighborhood Improvement Districts.
Intended Outcome:	Maintenance and replacement of deteriorating improvements to improve the community.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon County Housing & Redevelopment Authority; 10,000 Friends of Pennsylvania
Funding Sources:	Municipalities; PA DCED Core Communities Housing Program
Action 1D3:	Provide provisions and incentives for redevelopment and infill development.
Intended Outcome:	Development of vacant areas and rehabilitation of existing structures in urbanized areas where infrastructure and services are in place.
Time Horizon:	Initiate in 2010-2011 or in conjunction with municipal ordinance updates
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; LVEDC; Community of Lebanon Association; Lebanon County Housing & Redevelopment Authority; 10,000 Friends of Pennsylvania; Pennsylvania Environmental Council
Funding Sources:	Municipalities; PA DCED Core Communities Housing Program; Community Development Block Grant program (CDBG)

Action 1D4:	Encourage adaptive reuse of existing structures.
Intended Outcome:	Utilize existing historic structures for a purpose that applies today.
Time Horizon:	2010-2011 following historic resource inventory
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Community of Lebanon Association; LVEDC; Lebanon County Historical Society
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Main Street Program; Elm Street Program; Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP); Housing and Redevelopment Assistance Program (HRA)
Action 1D5:	Support historic district or property designation with letters of support for program applications and housing, land use and historic resources data.
Intended Outcome:	Historic preservation and improved neighborhood appearance.
Time Horizon:	Ongoing with emphasis during comprehensive and preservation planning
Lead Partners:	Municipalities
Support Partners:	Lebanon County Planning Department; Lebanon County Historical Society
Funding Sources:	Municipalities; Federal Historic Rehabilitation Tax Credit Program (US Dept. of Interior / National Park Service); National Trust for Historic Preservation (NTHP) Preservation Services Fund; NTHP Collaborative Pilot Program; PHMC Certified Local Government Program; PHMC History and Museum Grant Program; PA DCED Community Revitalization Program (CRP)

Action 1D6:	Support local municipalities with revising zoning provisions in select areas to facilitate residential conversions, i.e. conversion or alteration of existing single family dwellings into multiple residential units.
Intended Outcome:	Increased range of housing opportunities in select areas (select areas TBD).
Time Horizon:	Ongoing with emphasis after completion of municipal plans or plan updates
Lead Partners:	Municipalities; Lebanon County Planning Department
Support Partners:	Developers and homeowners
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Local Municipal Resources and Development Program (LMRDP); Community Revitalization Program (CRP); Urban Development Program (UDP); Housing and Redevelopment Assistance Program (HRA)
Objective 1E:	Coordinate and consolidate housing programs to meet current needs and address homelessness.
Action 1E1:	Explore feasibility of an emergency homeless shelter for Lebanon County residents. Continue to assess the extent of need through efforts such as homeless street counts and surveys.
Intended Outcome:	Decreased homelessness and improve quality of life for at risk population.
Time Horizon:	2010-2011
Lead Partners:	Lebanon County Coalition to End Homelessness
Support Partners:	Lebanon County Housing and Redevelopment Authority; Lebanon County Planning Department; United Way of Lebanon County; Bridge of Hope of Lebanon County; Local faith-based and religious groups
Funding Sources:	Community Development Block Grant program (CDBG)

Action 1E2: Convene a multi-faceted coalition to improve wages, benefits and access to transportation, childcare and health care coverage for Lebanon County workers as a part of or by incorporating the established Lebanon County Coalition to End Homelessness.

Intended Outcome:	Retain and attract workers to jobs with family sustaining wages and benefits. Provide affordable, energy conscious transportation to local jobs.
Time Horizon:	Ongoing as an annual summit, or as determined by partners
Lead Partners:	Lebanon Valley Chamber of Commerce
Support Partners:	LVEDC; PennDOT; Lebanon County Community Action Partnership; Good Samaritan Health System; Lebanon County Planning Department; Blueprint Communities representatives
Funding Sources:	Municipalities; PA DCED Community Revitalization Program

Action 1E3: Support and expand transitional and bridge housing programs.

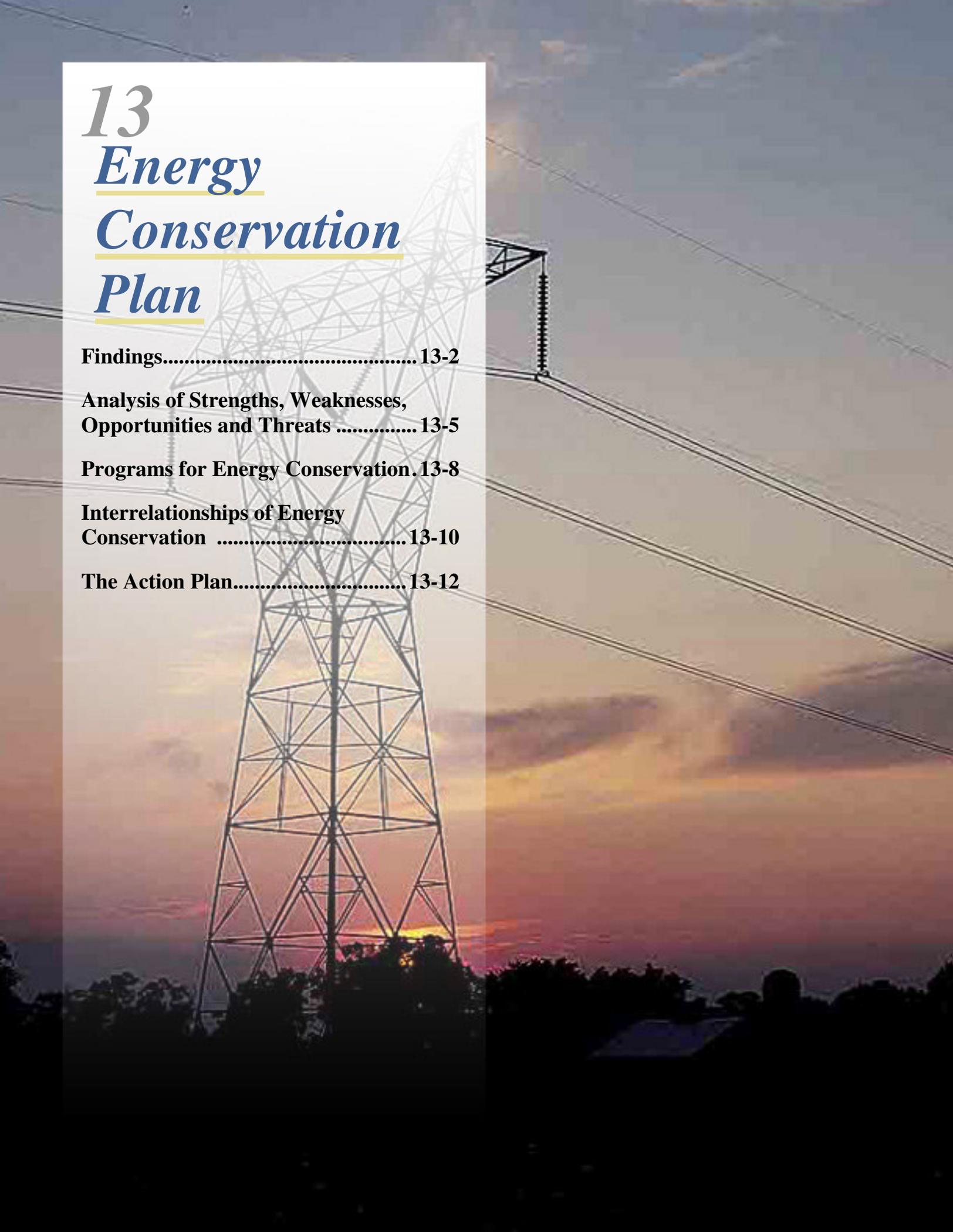
Intended Outcome:	Combat homelessness and increase the percentage of people in permanent housing.
Time Horizon:	2012-2013
Lead Partners:	Lebanon County Community Action Partnership
Support Partners:	DCED; Department of Public Welfare; Lebanon County Habitat for Humanity
Funding Sources:	HUD/ Community Development Block Grant program (CDBG)

Action 1E4: Expand programs that foster homeownership and support organizations that provide affordable homeownership solutions, such as Habitat for Humanity of Lebanon County.

Intended Outcome:	Increased homeownership and more affordable housing choices among both owner and rental units.
Time Horizon:	Identification of programs and partners in 2008-2009 and initiate in 2012-2013
Lead Partners:	Lebanon County Housing and Redevelopment Authority
Support Partners:	Lebanon County Community Action Partnership; Lebanon County Planning Department; Lebanon County Habitat for Humanity; Other non-profit organizations such as Bridge of Hope of Lebanon County
Funding Sources:	Municipalities; HUD; PA DCED Core Communities Program; PHFA; USDA Rural Development

Objective 1F:	Continue to monitor housing trends, market changes and assistance programs; document data; and communicate findings with municipalities and school districts.
Action 1F1:	Continue to issue quarterly development reports to municipalities and school districts.
Intended Outcome:	Informed officials at all levels of government.
Time Horizon:	Ongoing
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; School Districts
Funding Sources:	PA DCED Community Revitalization Program (CRP)
Action 1F2:	Integrate and expand housing data.
Intended Outcome:	Reliable and accurate data for use by Lebanon County Planning Department, municipalities, school districts and housing agencies.
Time Horizon:	Ongoing with emphasis during municipal planning and plan updates, following the national decennial censuses, and in preparation for update of the housing plan element of the comprehensive plan
Lead Partners:	Lebanon County Planning Department
Support Partners:	Lebanon City-County GIS Department; Municipalities; School Districts
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED): Land Use Planning and Technical Assistance Program (LUPTAP); Local Municipal Resources and Development Program (LMRDP); and Community Revitalization Program (CRP)
Action 1F3:	Maintain the City/County Geographic Information Systems (GIS) geodatabase with up-to-date software and current data sets.
Intended Outcome:	Reliable and accurate data for use by county and local government officials, school districts and the public. Relevant data sets include but are not limited to new subdivisions, new residential developments, zoning, building footprints, aerial photographs. Data management tools, such as permit tracking software, may also streamline inquiries and analyses.
Time Horizon:	Ongoing with emphasis during municipal planning and plan updates, following the national decennial censuses, and in preparation for update of the housing plan element of the comprehensive plan
Lead Partners:	Lebanon City/County Geographic Information Systems Department
Support Partners:	Lebanon County Planning Department; Municipalities; School Districts
Funding Sources:	Municipalities; PA DCED Community Revitalization Program (CRP)

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13 ***Energy*** ***Conservation*** ***Plan***

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The availability of energy resources is important to residents, businesses, developers, institutions, and all levels of government. Energy heats and cools our indoor environments, fuels our vehicles, and powers our computers, appliances, and equipment. Energy is critical to our modern personal, vocational and professional lifestyles and, as continuing technology advancements are made, our reliance on energy resources increases.



The Pennsylvania Municipalities Planning Code (MPC) encourages the incorporation of an energy conservation component in the comprehensive plan. Due to the increasing concern for the limits and environmental impacts of non-renewable resources, as well as interest in energy alternatives, an Energy Conservation Plan was determined to be a necessary element of the Lebanon County Comprehensive Plan.

MPC Option: *To promote energy conservation and the effective utilization of renewable energy sources, the comprehensive plan may include an energy conservation plan element which systematically analyzes the impact of each other component and element of the comprehensive plan on the present and future use of energy in the municipality, details specific measures contained in the other plan elements designed to reduce energy consumption and proposes other measures that the municipality may take to reduce energy consumption and to promote the effective utilization of renewable energy sources.*

MPC Article III, Section 301.1

The Lebanon County Energy Conservation Plan is presented in four major sections. The first presents findings from the *Energy Conservation Profile, Background Study #10*, including trends in energy use from both industry and localized perspectives. Secondly, a strategic analysis of these findings lays the foundation for a countywide energy policy. The third section discusses the interrelationships that energy and other elements of the comprehensive plan share. Finally, a vision for energy conservation in the county and an Action Plan conclude the chapter.

Overview Findings from the Energy Conservation Profile

A detailed profile of energy sources, uses and conservation practices was compiled prior to the development of the Energy Conservation Plan. Key findings from this research and analysis include the following:

- Modern society is reliant on energy for commercial, industrial, and residential uses and for travel and transportation among these uses. Energy is required for the construction and operation of most of our modern built facilities in both the public and private sectors. The vast majority of transportation modes used

today are motorized and powered by gasoline or other fuels. As the technology in our modern personal, business and community lifestyles increases, so too does our demand and reliance on energy resources.

- Sources of energy used in modern commercial, industrial and residential uses include:
 - renewable sources, such as solar, geothermal, wind, and wood;
 - non-renewable sources such as coal, propane, and various petroleum products; and
 - hybrid fuels such as biodiesel and ethanol blends.
- The selection of an energy source for a particular use depends on what types of energy is needed and what sources are available.
- Energy use and rates of consumption for any individual site or operation are influenced by a number of factors: climate, site design, building size and materials, operational costs of equipment and transportation needs.
- The cost of energy impacts both public and private sectors. Residents pay energy bills for home heating, electricity, and fuel costs for travel. Business and industry, including the farming community, pay the equipment costs of processing and production and transportation costs to import supplies and export products and service. Community institutions pay for facility heating, electricity, and business travel.
- The price of electricity in Pennsylvania has grown steadily over the past 45 years with dramatic increases during the 1970s and early 1980s; the prices of gasoline and diesel fuel have increased dramatically since 2001.
- Increasingly the cost of energy is measured by consumers in terms of its monetary cost of production and transmission as well as its environmental impacts. Under Pennsylvania's restructuring of its retail electric power markets, customers of Pennsylvania's eight largest investor-owned utilities were allowed a greater choice in the source (and impacts) of their electricity generation from their transmission service provider.
- Lebanon County residents rely heavily on non-renewable sources of fuel for home heating. Fuel oil is the most popular energy source in Lebanon County for home heating; 55.7% of all housing units rely on fuel oil, compared to 25.5% across the state. Utility or natural gas is the second highest fuel in demand for home heating, followed by electricity.



- Energy production in Lebanon County is limited to a small electric generation plant in South Lebanon Township, a methane recovery generator at the county landfill, and wind mills and solar panels serving private properties. Ethanol producers have actively pursued development of sites in the south central Pennsylvania region but none in Lebanon County.

Specific energy conservation initiatives that are occurring within the farming community in Lebanon County include installing solar panels on poultry houses and utilizing computer chips in brooders that reduce propane consumption by 30%.

- Consumption of gasoline has decreased over the last couple of years while the consumption of diesel fuel has increased.

Table 13-1 Gasoline and Diesel Fuel Sales and Price Increases in Pennsylvania, 1995-2004

Year	Gasoline Sales		Gasoline Price		Diesel Sales		Diesel Price	
	1000 gallons/day	% Change	\$	% Change	1000 gallons/day	% Change	\$	% Change
1995	13,988.2		\$1.23		97,145.6			
1996	13,986.0	0.0	\$1.31	6.4	102,756.6	5.8		
1997	13,977.2	-0.1	\$1.30	-0.8	105,457.9	2.6	\$1.24	
1998	13,778.0	-1.4	\$1.10	-14.9	111,178.3	5.4	\$1.13	-9.1
1999	14,017.3	1.7	\$1.19	8.1	117,448.9	5.6	\$1.19	5.1
2000	14,001.2	-0.1	\$1.56	30.9	119,326.3	1.6	\$1.60	35.2
2001	14,238.6	1.7	\$1.49	-4.6	123,612.9	3.6	\$1.48	-8.0
2002	13,921.2	-2.2	\$1.41	-5.2	120,944.5	-2.2	\$1.40	-4.9
2003	13,201.4	-5.2	\$1.64	16.1	125,026.3	3.4	\$1.63	16.4
2004	13,111.8	-0.7	\$1.93	17.9	129,277.6	3.4	\$1.90	16.6
2005			\$2.35	21.7			\$2.50	31.2

Source: Energy Information Administration, www.eia.doe.gov.

- Across the Commonwealth and the nation, biodiesel fuel production and use are rising. Biodiesel use has increased more than 50 times in the past five years, and is easier and cheaper to produce than ethanol.
- There are many programs that are available to residents to assist in making smart energy and cost saving choices. By using programs such as the Energy Star program and associated guidelines, homeowners can become more energy efficient, thus reducing long term operating costs and making household energy costs more affordable.



- Energy conservation efforts in the transportation sector are typically aimed at changing to more efficient or cleaner burning fuels, or at changing the way in which people travel. Ethanol, biodiesel, natural gas, and in the long term hydrogen are the fuel alternatives most likely to become widely available. Regional initiatives, such as the Commuter Services of South Central Pennsylvania, help commuters and employers in Adams, Cumberland, Dauphin, Lancaster, Lebanon, Perry and York Counties find a more efficient and less costly way to get to and from employment.
- In Lebanon County, several municipalities have incorporated provisions for energy conservation into their policies and regulations. The most common provisions are designed “to allow the installation of renewable energy devices and provide the opportunity for individuals to reduce energy dependence by encouraging the productive use of solar and wind energy components.”
- Energy provisions are also making their way into land development provisions. South Annville Township has adopted new zoning regulations to allow more compact development that requires fewer streets, less infrastructure and more open space that will save developers installation costs and save municipalities maintenance costs.

Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis)

This section presents an assessment of energy use and conservation practices in Lebanon County. This assessment provides the foundation for energy conservation policies and recommendations that build upon the strengths, improve weaknesses, recognize and seize opportunities, and increase awareness and defend against threats to energy production and use.

Strengths

- **Historical Development Patterns.** Compact development, where goods, services, jobs, residences, and recreation are closer together, reduces dependency on vehicles for travel and increases opportunities for walking, bicycling, and public transportation, thereby reducing transportation fuel demand. In addition, compact development more efficiently serves development with public services and infrastructure. These energy conserving principles are evident in the communities of Annville, Cleona, Lebanon, Palmyra, Myerstown and Jonestown. The pattern of development found in these communities can serve as a model to new development.
- **Public Transportation.** Lebanon County residents have access to public transportation within the County of Lebanon Transit Authority’s (COLT) Fixed Route and paratransit service areas. Residents can also connect to the Capital Area Transit Authority (CAT) and the Red Rose Transit Authority (RRTA) transit systems in the Harrisburg and Lancaster areas, respectively.

- **Transportation Alternatives.**

Commuter Services of South Central Pennsylvania helps commuters and employers in Adams, Cumberland, Dauphin, Lancaster, Lebanon, Perry and York counties find a more efficient and less costly way to get to and from employment. The Susquehanna Regional Transportation Partnership's goal is to reduce single-occupancy vehicle (SOV) dependence in the region.



- **Lebanon County Conservation District (LCCD).** Although the LCCD focuses primarily on the conservation of land and water resources, it also promotes energy conservation. The LCCD's annual Awards Program recognizes individuals, organizations and businesses for their stewardship of natural resources; these awards may include green technology upgrades that focus on energy conservation. Programs provide incentives for businesses to incorporate energy conservation into their daily practices.

Weaknesses

- **Recent Development Patterns.** The majority of new residential development is occurring in the suburban and rural areas of the county. Located farther from community and employment destinations, these residences place high demands on the use of the automobile for personal, business, leisure and recreational travel.

- **Few Rail-Served Sites.** Rail freight services exist in a narrow corridor of the county. Rail-served sites can import raw materials and supplies and export pre-finished and finished products with minimal impact to the highway system. The expansion of rail-served sites could help to manage increasing traffic volumes.



- **Municipal Regulations.** Although several municipalities in the county have adopted energy conservation provisions or regulations, 12 of the county's 26 municipalities lack regulations that promote energy conservation in the ongoing development of local communities.

Opportunities

- **Pennsylvania’s Energy Independence Strategy and the creation of the Energy Independence Fund.** This initiative represents a commitment by the state to invest in energy conservation. It aims to reduce costs for consumers, reduce reliance on foreign fuels and increase Pennsylvania’s clean energy production capacity. It also hopes to expand Pennsylvania’s energy production and energy technology sectors to create more jobs. To ensure that Pennsylvania’s economy and jobs are benefiting from the national growth in the clean energy sector, the Energy Independence Fund will accelerate the role that Pennsylvania companies play in the production of clean energy components and systems through venture capital, loans, and grants that require at least matching funds from the private sector. The Fund will also initiate clean energy economic development projects and keep energy jobs close to home by requiring that renewable energy projects be constructed in a place that directly supports the grid that serves Pennsylvanians. This initiative represents an opportunity for residents, businesses and the public sector to invest in the rapidly expanding clean energy industry.
- 
- **Branding an Energy Conscience.** Some communities have taken energy policies to new heights. For example, Oakland, California has set a goal to become oil free by 2020. Such policies distinguish these communities from others by conveying the community’s commitment to energy conservation, environmental stewardship and economic stability.
 - **Corridor Two.** Plans for the Corridor Two Regional Rail may result in passenger rail service to Harrisburg via the Norfolk Southern Harrisburg Line and throughout south central Pennsylvania as the system expands. Although these improvements may be at least 20-25 years away, express bus service may provide an alternative for commuters in the near term.
 - **Innovative Development and Site Design.** Innovative subdivision and site design practices offer energy conscious development patterns. A mix of compatible uses in a subdivision can provide real travel options for residents, business employees, students and recreationists. Use of these techniques may require some education and case study presentations to encourage developers to propose such patterns and encourage local government to permit them.
 - **Alternative Fuels.** Although Lebanon County relies heavily on fuel oil for residential heating, and on gasoline and diesel for automotive fuel, several alternative fuels are available to Lebanon County residents. Such alternatives

include geothermal heating and wind power. Additionally, service stations offering ethanol and biodiesel are increasing across south central Pennsylvania.

Threats

- **Projected Community and Economic Growth.** Population projections for Lebanon County municipalities suggest that additional residential development should be expected; regional employment projections suggest additional non-residential growth as well. As a result, traffic volumes are expected to rise. Congestion will continue to increase unless substantial portions of new residential, commercial and industrial development are located within or adjacent to existing transit service areas, non-motorized travel options are expanded or travel to work using single occupancy vehicles (SOV) is changed. Incorporating energy conservation practices into local land use, development and transportation planning programs can help to minimize congestion increases.
- **Demand for Biodiesel and Ethanol.** Although ethanol and biodiesel have received widespread attention as viable alternative sources of fuel, their increased demand will have an impact on other areas of the economy. The United States Department of Agriculture (USDA) has predicted that the price of corn will increase due to the demand from ethanol producers. Such increases may inhibit the production of beef, pork, and chicken as farmers face the higher costs of feeding their livestock.
- **Aging Structures.** The aging building stock of Lebanon County poses challenges to energy conservation. Significant advances in energy conservation technology have occurred since the construction of many of these buildings, and without adequate maintenance or upgrades, may lead to higher than necessary operational costs. Reinvestment and rehabilitation of older structures can help to improve energy efficiency and offer cost savings opportunities to owners and occupants.

Programs for Energy Conservation Education and Support

Green Schools Program

The Green Schools Program begins with an introductory workshop that helps teams of teachers, custodial staff, administrators and students promote school-wide energy awareness, and develop a plan to save energy in the school and the community. Green Schools tracks energy usage within the school, encourages student learning and leadership development, and provides resources for integration into the curriculum.

Energy Conservation in ELCO

The ELCO School District has undertaken several energy conservation initiatives including energy efficient lighting in schools, temperature-controlled rooms, and equipment that enables the district to track periods of high energy usage. The district has also applied for a grant for a windmill that would power their facilities.

Clean Cities Program

The Clean Cities Program aims to advance the nation’s economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities Coalitions represent public/private partnerships that promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

International Council for Local Environmental Initiatives

The International Council for Local Environmental Initiatives (ICLEI) is an association of local governments for sustainability. ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development practices at the local level.

Cities for Climate Protection (CCP) Campaign is a program in which ICLEI communities can participate to take measures to reduce greenhouse gas emissions. Benefits include financial savings, improved air quality, and economic development through investments in locally produced energy products and services.

Model Ordinances for Energy Production and Conservation

Table 13-2 highlights the source and value of several model ordinances for energy production and conservation presented in *Appendix III*.

Table 13-2 Model Ordinances for Energy Production and Conservation

Ordinance	Reference	Comment
(Construction and Operation of) Wind Energy Facilities	PA DEP	As a result of increased interest in wind energy production in the energy industry and local government’s lack of experience in addressing the development and operation of such facilities in Pennsylvania, the PA DEP prepared this model ordinance to provide for the construction and operation of Wind Energy Facilities subject to reasonable conditions that will protect the public health, safety and welfare.
Small Wind Energy System Ordinance	Wisconsin Division of Energy and Wisconsin Towns Association	The Small Wind Energy System Ordinance was developed as a permitted use ordinance. The ordinance can be adapted to conditional use for a small wind turbine by inserting additional sections for standards, permit requirements and abandonment into the ordinance.

Table 13-2 Model Ordinances for Energy Production and Conservation
(continued)

Ordinance	Reference	Comment
Wind Energy Ordinance Options	New York State Energy Research and Development Authority	This publication provides model language for the purpose, definitions, plan submittal requirements and approval standards for safety, siting and installation, setbacks, nuisance, environmental and visual
Green Fleet Policy Ordinance	Clean Air County Initiative, Chicago, IL	This ordinance recognizes current costs for fleet operation and establishes policy and goals for improving fleet fuel efficiency.

Interrelationship of Energy Conservation to other Elements of the Comprehensive Plan

Because energy is a private utility in Pennsylvania, its production and use is finely integrated throughout community life. This integration is reflected in the *Energy Conservation Profile* and the earlier sections of this chapter. A few concluding examples are summarized here.

Land Use and Transportation

The amount and type of energy used to move people and goods in a community is determined in part by patterns of development and the transportation system. The spatial relationships of individual buildings, neighborhoods, communities and regions determine how far and by what means people find it convenient to travel to work, recreational facilities, schools, religious centers, stores, and entertainment venues and will send and receive their supplies and products. Zoning practices from the mid to late 20th century increasingly separated residential neighborhoods from other destinations, resulting in increased vehicular travel and more expansive public infrastructure. Land use policies that promote a mix of compatible uses and transportation policies that promote multi-modal travel options, such as bike racks on transit busses, can reduce the energy demands of residents, businesses and community facilities and services.



The Land Use Plan promotes mixed uses throughout its nine land use designations and associates transportation modes appropriate to each designation. The Long Range Transportation Plan (LRTP) of the Lebanon County Metropolitan Planning Organization (LEBCO MPO) recommends several non-motorized transportation projects, including short-term and long-term Lebanon Valley Rail Trail extensions, the South Lebanon Township Trail Project, and Safe Routes to School projects in the Northern Lebanon School District and Jonestown Borough. Once completed, these projects will offer real alternatives for school- and recreation-related travel. Additionally, the plan recommends continued involvement in the Susquehanna Regional Transportation Partnership as a means of reducing single-occupancy vehicle (SOV) dependence in the region.

Furthermore, a COLT business plan will be developed by June of 2008 to address transit operations over the next five to seven years.

Community Facilities and Services

The location and design of various community facilities and services has an impact on energy use. Encouraging schools and recreational facilities, religious centers, and other community facilities and services to locate near residential neighborhoods encourages people to walk or bike to these destinations. Compact forms of development also limit the distance that public safety and emergency personnel have to travel to reach someone in need.



In addition, the condition of water and sewer infrastructure also influences energy demand for these utilities. Inefficiencies in treatment equipment and transmission lines can lead to higher operational costs for authorities, companies and ultimately consumers.

Berks County gets behind Energy Conservation

Berks County has an energy tour of green buildings that helps to increase awareness of energy conservation techniques. The County also helps with the annual Pennsylvania Renewable Energy and Sustainable Living Festival that is held in Kempton by offering workshops on wind power and other alternative energy sources.

Housing

The location and design of housing can contribute to the amount of energy that is required for home heating and general operation. Homes sited or screened from winter winds and shaded from summer sun tend to reduce energy costs for seasonal heating and cooling. Detached and single story homes tend to use more energy than attached and multi-story homes.



Building design and construction materials also contribute to energy efficiency. Buildings that are oriented to the south will absorb more thermal energy and be warmer in the winter because of the angle of the sun.

The Action Plan

The Energy Conservation Action Plan identifies a variety of actions for the county and its partners to undertake or to support in order to encourage energy conservation throughout community development and community life. They promote awareness for energy alternatives, encourage the use of conservation practices, and recommend model provisions for the siting and operation of energy production facilities. For each action, an intended outcome, a proposed time horizon, lead and support partners, and funding sources are identified.



Vision, Goal and Objectives

Before a plan is set forth, it is important to have a clear and concise vision of how energy conservation is viewed in relation to community development. This vision should reflect all aspects of energy use from generation to consumption. The plan's goal must then set the direction for change and present associated objectives to encourage energy conservation and the promotion of renewable sources of energy.

Vision

Lebanon County is recognized for its implementation of modern energy policies. The county strives to reduce energy demand and achieve energy efficiency in the design, maintenance, and operation of public facilities. In the private sector, it promotes alternatives to conventional subdivision and land development that reduce energy demands for heating and cooling, as well as encourage convenient, energy efficient travel and transportation options. It recognizes energy sources that provide alternatives to fossil fuels and guides the siting of power generation facilities to maximize benefits and minimize impacts on the community and environment.

Goal

Promote energy efficiency and conservation throughout the community development and community revitalization processes.

Objectives

- A. Promote the energy efficient design of homes, sites, and communities.
- B. Reduce energy consumption in construction design, materials, and processes.
- C. Reduce energy consumption in community facilities and service operations.
- D. Administer and enforce energy codes.
- E. Promote the use of alternative energy sources.
- F. Expand the non-vehicular transportation system.

Recommendations

Goal 1:	Promote energy efficiency and conservation throughout the community development and community revitalization processes.
Objective 1A:	Promote the energy efficient design of homes, sites, and communities.
Action 1A1:	Establish model energy conservation ordinance provisions and encourage their review and incorporation into municipal regulations.
Intended Outcome:	Consistent energy conservation standards throughout the county.
Time Horizon:	2010-2011 for incorporation into county subdivision and land development ordinance and distribution as model a ordinance to municipalities with their own ordinance administration
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon County Conservation District
Funding Sources:	Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); United States Department of Energy (DOE)
Action 1A2:	Work with developers, architects, and local municipal officials to permit and encourage energy efficient building design.
Intended Outcome:	Energy efficient new construction.
Time Horizon:	2008-2009 for initial educational outreach, e.g. workshops
Lead Partners:	Lebanon County Planning Department; Municipalities; Developers
Support Partners:	Lebanon County Builders Association; Lebanon County Conservation District; State and Federal Government agencies
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; United States Environmental Protection Agency (EPA) Sustainable Development Challenge Grants; Pennsylvania Energy Development Authority Grants (PEDA)

Action 1A3: Promote best practices for energy efficiency in rehabilitation and redevelopment projects.	
Intended Outcome:	Energy efficient rehabilitated structures or redevelopment projects that result in decreased costs for inhabitants.
Time Horizon:	2010-2011 for subsequent and ongoing outreach
Lead Partners:	Lebanon County Planning Department; Municipalities
Support Partners:	Lebanon County Builders Association
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Community Revitalization Program; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; United States Environmental Protection Agency (EPA) Sustainable Development Challenge Grants; Low Rate Energy Star Loans; Keystone Home Energy Loan Program (HELP); Pennsylvania Energy Development Authority Grants (PEDA)
Action 1A4: Encourage new public buildings (e.g. public housing, municipal buildings, schools) to be designed as green buildings or designed in an energy efficient manner.	
Intended Outcome:	Increased awareness of the need to evaluate short-term construction cost versus long-term operational cost savings when evaluating building and site design options. Slightly more expensive construction costs can be offset by decreased operational costs due to decreased energy usage.
Time Horizon:	2010-2011 for subsequent and ongoing outreach
Lead Partners:	Lebanon County Commissioners; Municipalities; School Districts
Support Partners:	Lebanon County Planning Department
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Community Development Block Grant (CDBG); Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; United States Department of Energy (DOE) Rebuild America Program DCED Weatherization Program; Keystone Home Energy Loan Program (HELP); Pennsylvania Energy Development Authority Grants (PEDA)

Action 1A5: Encourage the use of innovative development techniques by right as appropriate to downtown, suburban and rural area, e.g. Traditional Neighborhood Development (TND) and Transit Oriented Development (TOD) in downtown and suburban areas, and Conservation by Design, Planned Residential Developments (PRD). (same as Housing Plan Action 1A4)

Intended Outcome: Increased range of housing opportunities that support walkable neighborhoods and public transit.

Time Horizon: 2012-2013 as an implementation of up-to-date municipal comprehensive plans

Lead Partners: Municipalities; Lebanon County Planning Department

Support Partners: Lebanon County Builders Association; Developers

Funding Sources: Municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP) PA DCED Urban Development Program (UDP); Natural Lands Trust; Ben Franklin Partnership

Objective 1B: Reduce energy consumption in construction design, materials, and processes.

Action 1B1: Develop a factsheet or brochure to educate residents, businesses and industry leaders, developers and builders of energy conservation techniques that can be applied to design, materials, and processes.

Intended Outcome: Increased awareness of alternative energy conservation techniques.

Time Horizon: 2010-2011 for ongoing outreach

Lead Partners: Lebanon County Conservation District

Support Partners: Lebanon County Planning Department; Municipalities; Lebanon County Builders Association; Local business and industry; Utility companies

Funding Sources: United States Environmental Protection Agency (EPA) Environmental Education Grants Program; United States Department of Agriculture (USDA) Rural Business – Cooperative Service; Pennsylvania Department of Community and Economic Development (DCED) Pollution Prevention Assistance Program; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Grants

Action 1B2:	Develop a factsheet or brochure to educate residents and businesses and industry leaders about energy conservation programs, such as the Energy Star program.
Intended Outcome:	Decrease energy consumption and decreased costs for residents, businesses and industries in the county.
Time Horizon:	2010-2011 for ongoing outreach
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Municipalities; School Districts; Utility companies
Funding Sources:	United States Environmental Protection Agency (EPA) Environmental Education Grants Program; the Sustainable Energy Fund of Central Eastern Pennsylvania; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Grants
Action 1B3:	Continue and expand energy conservation programs and awards, such as the County Conservation District's Business Steward of the Year award.
Intended Outcome:	Additional incentives, beyond cost savings, to support energy conservation.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department
Funding Sources:	Local funds; Energy Star Program; Penn Future Green Power Awards

Objective 1C:	Reduce energy consumption in community facilities and service operations.
Action 1C1:	Promote and encourage energy conservation education and the use of alternative energy sources in public schools.
Intended Outcome:	Increased awareness of the importance of energy conservation among school students, teachers, and administration and use of alternative energy sources.
Time Horizon:	2008-2009 to develop the initiative and mini-curriculum; ongoing implementation
Lead Partners:	School Districts
Support Partners:	Lebanon County Conservation District; Lebanon County Planning Department; Municipalities; Utility companies
Funding Sources:	United States Environmental Protection Agency (EPA) Environmental Education Grants Program; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; Pennsylvania Energy Development Authority (PEDA)
Action 1C2:	Host a summit for school district officials on the Green Schools Program; support their efforts to implement operational improvements to reduce energy consumption.
Intended Outcome:	Create energy efficient schools and increased awareness among school students, teachers, staff, and administration of energy conservation programs such as Green Schools.
Time Horizon:	2008-2009 for summit; ongoing support for improvements
Lead Partners:	School Districts
Support Partners:	Lebanon County Conservation District; Lebanon County Planning Department; Utility companies
Funding Sources:	State Public School Building Authority High Performance Green Schools Planning Grants; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Grants

Action 1C3:	Support energy conservation initiatives at county and local government institutions through educational seminars, materials purchases, e.g. office supplies, building maintenance and janitorial products, road crew and road maintenance materials, etc., and the design of green buildings for new municipal construction.
Intended Outcome:	Increased awareness of the importance of energy conservation throughout community facilities and institutions, and decreased energy consumption.
Time Horizon:	2012-2013 highlighting achievements of public school energy conservation efforts
Lead Partners:	Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Municipalities; Utility companies
Funding Sources:	Local municipalities; United States Environmental Protection Agency (EPA) Environmental Education Grants Program; the Sustainable Energy Fund of Central Eastern Pennsylvania; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; Pennsylvania Energy Development Authority (PEDA) Grants
Action 1C4:	Explore benefits of membership in a group or program that promotes energy conservation such as Clean Cities Coalition, the International Council for Local Environmental Initiatives (ICLEI), or Cities for Climate Protection (CCP) Campaign.
Intended Outcome:	Provide membership resources for the county to improve knowledge of energy conservation initiatives and funding.
Time Horizon:	2008-2009
Lead Partners:	Lebanon County Planning Department
Support Partners:	Lebanon County Conservation District; Municipalities
Funding Sources:	Municipalities

Objective 1D: Enforce energy codes.

Action 1D1:	Explore the standards established by the International Energy Conservation Code (IECC); if the code is appropriate to current development practices in the county, encourage adoption of the IECC and any subsequent updates.
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Intended Outcome:	Consistency in energy conservation requirements.
Time Horizon:	2014-2015
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities
Funding Sources:	Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance (LUPTAP); PA DCED Local Municipal. Resources and Development Program (LMRDP)

Action 1D2:	Explore interest in county administration and enforcement of the IECC.
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Intended Outcome:	Proper energy conservation and consistency in code enforcement.
Time Horizon:	2014-2015
Lead Partners:	Lebanon County Planning Department
Support Partners:	Municipalities; Lebanon County Conservation District
Funding Sources:	County budget for Planning Department staff; Municipal funds for contract services

Objective 1E: Promote the general conservation of energy and the use of renewable energy sources.

Action 1E1: Strengthen and expand energy conservation awareness activities such as Earth Day education in schools.

Intended Outcome: Increased awareness of the need to conserve energy, for school students, teachers, and administration.

Time Horizon: 2008-2009 and ongoing

Lead Partners: School Districts

Support Partners: Lebanon County Conservation District; Lebanon County Planning Department

Funding Sources: United States Environmental Protection Agency (EPA) Environmental Education Grants Program

Action 1E2: Review and tailor model ordinance provisions for the siting of alternative power generation facilities (e.g. biofuels plants, wind turbines, etc.), and encourage review, revision, and adoption by local municipalities.

Intended Outcome: Consistent provisions for alternative energy sources to encourage energy efficiency and renewable sources of energy.

Time Horizon: 2012-2013 as an implementation of up-to-date municipal comprehensive plans

Lead Partners: Lebanon County Planning Department

Support Partners: Municipalities; Lebanon County Conservation District

Funding Sources: Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance (LUPTAP); PA DCED Local Municipal. Resources and Development Program (LMRDP)

Action 1E3: Support public school initiatives to explore and use alternative energy sources.	
Intended Outcome:	Increased awareness of the importance of energy conservation among school students, teachers, and administration and use of alternative energy sources.
Time Horizon:	2012-2013
Lead Partners:	School Districts
Support Partners:	Lebanon County Conservation District; Lebanon County Planning Department; Municipalities; Utility companies
Funding Sources:	United States Environmental Protection Agency (EPA) Environmental Education Grants Program; Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; Pennsylvania Energy Development Authority (PEDA)
Action 1E4: Investigate opportunities for biofuels production.	
Intended Outcome:	Increased awareness of alternative fuel sources, production of alternative fuel sources, alternative fuel sources as a part of the local economy.
Time Horizon:	2008-2009
Lead Partners:	Local Farmers; Lebanon County Conservation District
Support Partners:	Lebanon County Planning Department; Municipalities
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Energy Harvest Program; Alternative Fuels Incentive Grant Program; United States Department of Agriculture (USDA) Value-Added Agricultural Product Market Development Grants; USDA Rural Business – Cooperative Service

Objective 1F: Expand the non-motorized transportation system.

Action 1F1: Revise regulations to encourage and require neighborhood amenities such as sidewalks, walking and biking trails, and streetscapes appropriate to urban, suburban, and rural areas. (Same as Housing Plan Action 1C3)

Intended Outcome: Reduce the dependency on the single occupant automobile by promoting, encouraging, and incorporating the use of public transit, connecting parks and developments with sidewalks and trails, and creating walkable developments.

Time Horizon: 2012-2013 as an implementation of up-to-date municipal comprehensive plans

Lead Partners: Municipalities; Lebanon County Planning Department

Support Partners: LEBCO MPO

Funding Sources: Local municipalities; Pennsylvania Department of Community and Economic Development (DCED) Land Use Planning and Technical Assistance Program (LUPTAP); PA DCED Main Street Program; PA DCED Elm Street Program; PA DCED Local Municipal Resources and Development Program (LMRDP); PA DCED Community Revitalization Program (CRP) PA DCED Urban Development Program; Community Development Block grants; PennDOT's Transportation Enhancement Program and Safe Routes to School Program (for projects); Penna. Advocates for Nutrition & Activity (PANA); Safe Routes to School Program

Action 1F2: Promote public transit in the county as a reliable, safe, and cost effective form of transportation that all residents can utilize.

Intended Outcome: The County of Lebanon Transit (COLT) Business Plan, with funding assistance from the LEBCO MPO, is one example of county efforts to improve system service and efficiency.
Increased ridership and decreased dependence on the personal automobile.

Time Horizon: 2008-2009 and ongoing as an implementation to the COLT business plan

Lead Partners: County of Lebanon Transit Authority (COLT); LEBCO MPO

Support Partners: Lebanon County Planning Department; Lebanon Valley Chamber of Commerce; Susquehanna Regional Transportation Partnership

Funding Sources: COLT; LEBCO MPO; PennDOT; Susquehanna Regional Transportation Partnership

Action 1F3:	Promote ridesharing and carpooling programs and resources for residents and businesses.
Intended Outcome:	Increased ridesharing and decreased one-person automobile traffic.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	Commuter Services of South Central Pennsylvania; Susquehanna Regional Transportation Partnership; Lebanon Valley Chamber of Commerce
Support Partners:	Lebanon County Planning Department; LEBCO MPO
Funding Sources:	Susquehanna Regional Transportation Partnership; LEBCO MPO Congestion Mitigation Air Quality funds
Action 1F4:	Support public transit companies that use or want to acquire vehicle fleets that operate on renewable or alternative fuels. For example, BARTA in Reading has converted its fleet to compressed natural gas (CNG). It has also established CNG fueling facilities for the fleet in cooperation with gas companies.
Intended Outcome:	Decreased consumption of gasoline or diesel fuel.
Time Horizon:	2008-2009 and ongoing
Lead Partners:	County of Lebanon Transit Authority
Support Partners:	Lebanon County Planning Department; LEBCO MPO
Funding Sources:	Pennsylvania Department of Environmental Protection (DEP) Alternative Fuels Incentive Grant Fund; DEP Energy Harvest Grants; Pennsylvania Energy Development Authority (PEDA) Grants; PennDOT and Federal Transit Administration Public Transportation Assistance Funds (typically allocated to County of Lebanon Transit)

Action 1F5:

Develop a best practice tipsheet for fleet management for local governments that includes guidelines for the purchase of hybrid or alternative fuel cars, increased preventative maintenance, and consolidation or elimination of use for certain trips.

Intended Outcome:

Allow the county's use of fleet vehicles to serve as an example for decreased gasoline and diesel fuel consumption for automobile use.

Time Horizon:

2010-2012

Lead Partners:

Lebanon County Conservation District; Lebanon County Commissioners

Support Partners:

Lebanon County Planning Department; LEBCO MPO

Funding Sources:

Pennsylvania Department of Environmental Protection (DEP) Alternative Fuels Incentive Grant Program; DEP Energy Harvest Grants; Pennsylvania Energy Development Authority Grants (PEDA)

14

Regional Relationships & Consistency

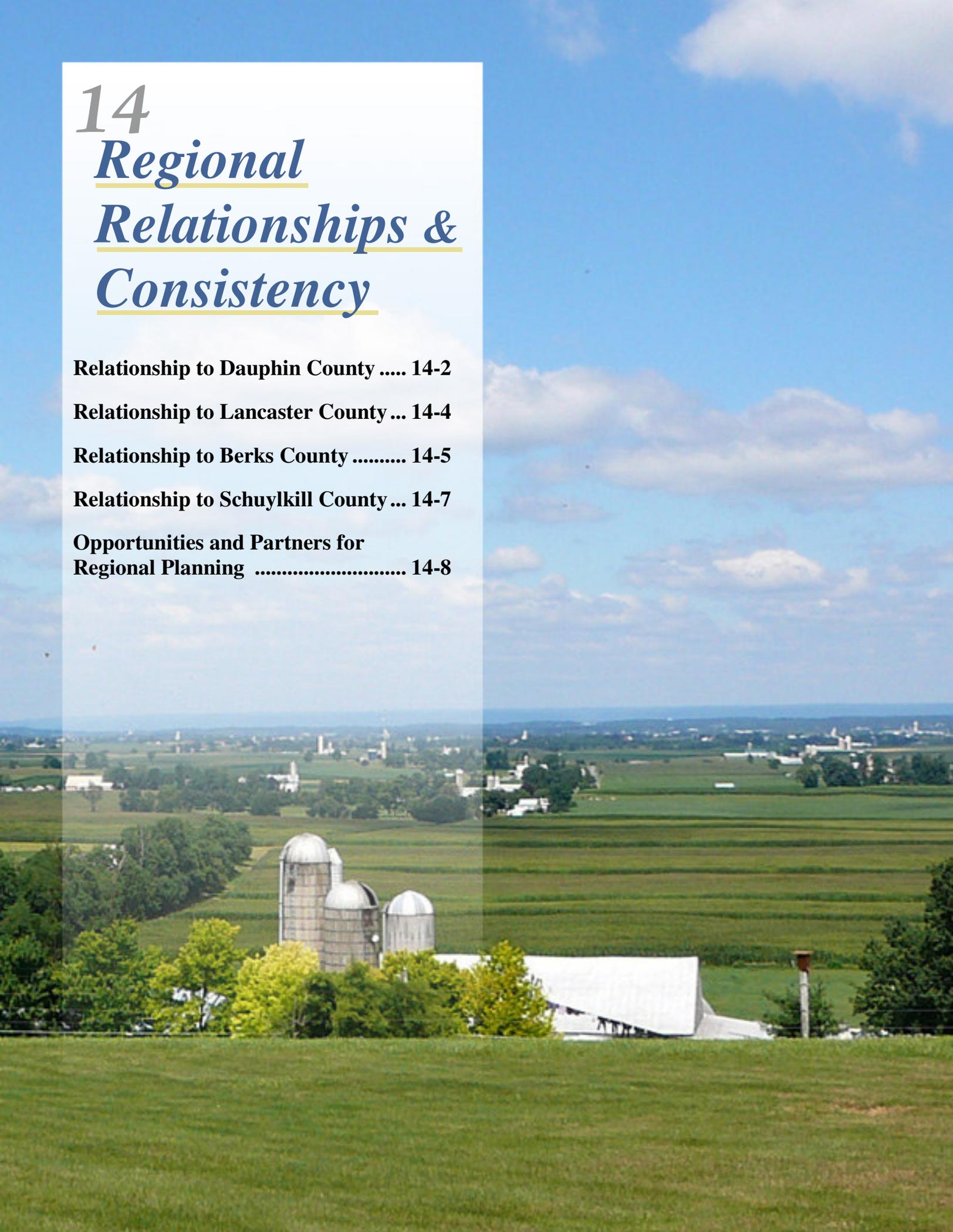
Relationship to Dauphin County 14-2

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Regional Planning 14-8**



Sound comprehensive planning fully recognizes that municipal boundaries are not physical, social, economic or environmental constraints to the impacts of development and conservation. As mandated by Section 301(a)(5) of the Pennsylvania Municipalities Planning Code (MPC), comprehensive plans must discuss the relationship of the existing and proposed development of the county to the existing and proposed plans in contiguous municipalities. The intent of this requirement is to support planning consistency and coordination along municipal boundaries. This chapter addresses the consistency of the Lebanon County Comprehensive Plan with the comprehensive plans of the surrounding counties.

MPC Requirement: *A statement indicating that the existing and proposed development of the municipality 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 disparate uses, and a statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan.*

MPC Article III, Section 301(a)(5)

Relationship to Dauphin County

Lebanon County's northern and western borders adjoin Dauphin County. The northern border parallels Second Mountain north of Blue Mountain and Stony Valley. Vast expanses of forested mountain land are the only shared features across the northern border.

The western border crosses the Great Valley from the forested South Mountain to Blue Mountain as well as several common man-made features. US Routes 22, 322 and 422 and Interstates 76 and 81, as well as the Norfolk-Southern rail line, travel along the valley through both counties. The 17,000 acre Fort Indiantown Gap Military Reservation spans the border north of Interstate 81. The PA American Water system also traverses this border. While located only in Dauphin County, the Penn State Hershey Medical Center, Hershey Chocolate Company, Hershey attractions, and Milton Hershey School are tremendous generators of traffic from Lebanon County and beyond. Intensive development of various types is generally concentrated between the Route 322 and 422 corridors.

The current Dauphin County Comprehensive Plan was adopted in 1992; a new comprehensive plan was prepared in recent years and is awaiting the Commissioners final approval and adoption. The 2007 draft plan aims to retain the unique character of its city, boroughs, villages and townships by:

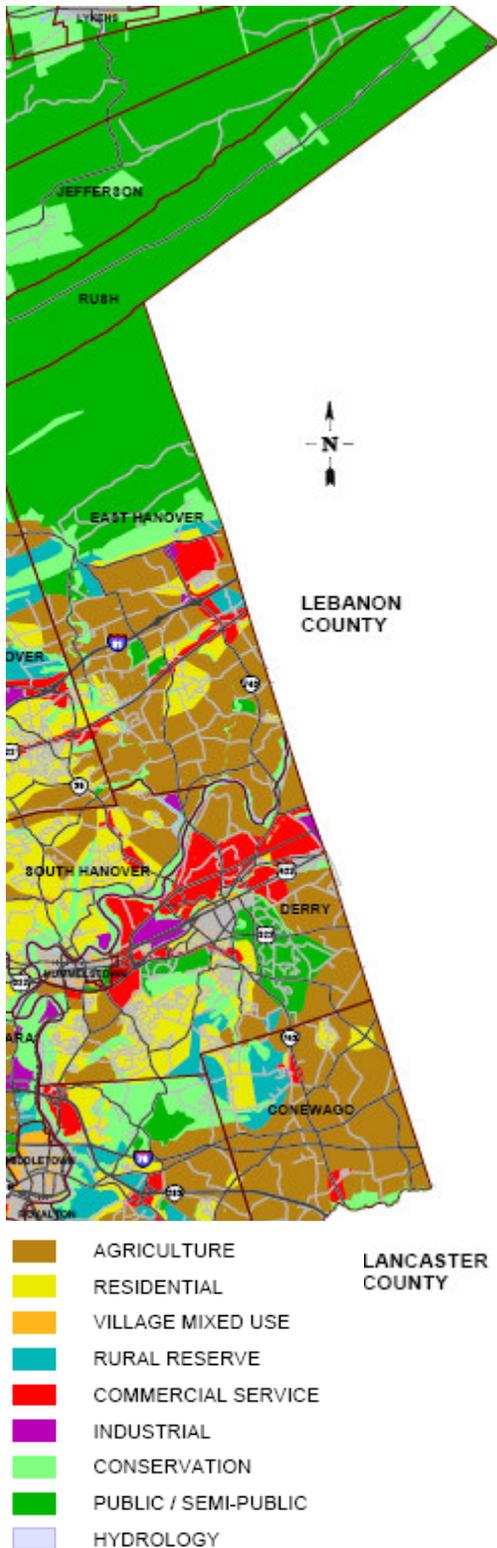


Figure 14-1 Excerpt from Dauphin County's Future Land Use Map

- Preserving the character and human scale of traditional neighborhoods and central business districts that makes them livable, vital places to live and work.
- Protecting natural resources before allowing these resources to be considered for or impacted by development.
- Targeting economic development to areas where public investments have already been made in the infrastructure and encouraging intergovernmental cooperation and coordination to facilitate business development, retention and expansion in the county and throughout the region.
- Focusing future development in and around Community Service Areas (CSAs) where services such as water, sewer, transit, highway access and community facilities (parks, libraries, fire/police service) exist.
- Providing a variety of types of housing for all age groups and income levels, primarily within the Community Service Areas in an attempt to not overbuild the housing stock.
- Maintaining and augmenting, when necessary, the existing transportation infrastructure.

Based on these goals and a broad theme of balancing development and conservation, Dauphin and Lebanon Counties share a similar philosophy for growth management.

Dauphin County's Generalized Future Land Use map illustrates these goals through the designation of:

- Public and semi-public, conservation and rural reserve lands along the northern mountain range,
- Commercial service and residential lands along the Route 22 corridor,
- Industrial and village mixed use and conservation lands along Route 422, and
- Agricultural and conservation lands along the remaining border.

These future uses are generally compatible with future uses designated in Lebanon County north of Swatara Creek and along South Mountain with two exceptions. The first occurs on the lands between Ridge Road and the Swatara Creek in Lebanon County. These lands designated as Suburban Neighborhood contain extensive topographic and other natural constraints as well as plans for continued use of on-lot water and septic systems that will limit the intensity of development in this area. Nonetheless, careful attention should be paid to prevent or mitigate regional impacts in this area, if development is proposed. The second occurs along the Route 322 corridor where Lebanon County lands are designated Suburban Business and adjoined by lands designated as Suburban Neighborhood. In recent years, development has occurred on both sides of the county border: the Milton Hershey School has constructed new homes for its students and residential and commercial development has extended west from Campbelltown in Lebanon County. Special attention should also be given to ensure that development in this area does not negatively impact the agricultural and institutional operations in Dauphin County and that transportation and infrastructure investments are coordinated, if and when needed. In addition, conservation of riparian and major greenways, namely the Blue Mountain/Kittatinny Ridge and the Highlands across South Mountain should be coordinated.

Relationship to Lancaster County

Lebanon County's southern border is shared with Lancaster County. Like the southern region of Dauphin County, this border parallels South Mountain and the Highlands Greenway of the mid-Atlantic region. The border crosses Routes 72, 241, 322 and 501, as well as the Pennsylvania Turnpike, Interstate 76. Middle Creek Wildlife Management Area is the largest connecting feature that spans the border.

South Mountain is largely forested and interspersed with agricultural lands. A few low density residential parcels and subdivisions, as well as an occasional commercial operation, are scattered throughout this region on both sides, but there are no substantial water or sewer systems that encourage intensive development. These current uses are by and large compatible with the rural landscape character.

Balance, the Growth Management Element of Lancaster County's Comprehensive Plan, and *ReVisions*, its policy document, outline six key focus areas for Lancaster County's future:

1. Protecting and preserving our natural and cultural heritage
2. Revitalizing our urban communities
3. Developing livable communities
4. Creating a sustainable economy
5. Celebrating, investing in, and mobilizing the talents of our human resources
6. Promoting strong leadership, awareness, responsibility, and involvement in community issues

These focus areas are extrapolated into urban and rural designations and associated strategies for managing land use and development. Only rural areas are designated along the shared border with Lebanon County. Agricultural with Natural Areas, lands to be managed to preserve productive farmland, promote a healthy agricultural industry, maintain scenic and historic rural landscapes, and protect natural resources, are shown for

the far western end of the border. The majority of the border is shown as Natural Areas, lands to be managed for the protection of natural, recreational and scenic resources. A few Villages and Crossroads Communities are scattered along the southern edge of South Mountain; these contain only small if any water or sewer systems and are not planned for extensive expansion.

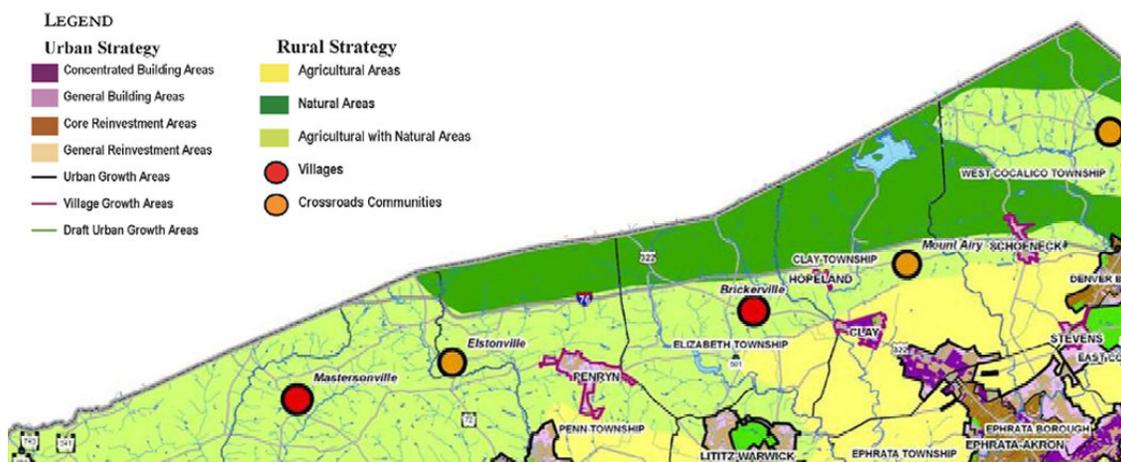


Figure 14-2 Excerpt from Lancaster County's Growth Management Framework Map

While these policies suggest a very resource-focused conservation approach to land use management along the border, it should be noted that the interchange area of the Pennsylvania Turnpike has seen increased development in recent years. Local implementation of these policies in this area will be key to resource and landscape character conservation. Special attention, such as best practices and design guidance, may help to minimize the impact of any further development that is permitted.

These future land use designations and purposes are quite similar and no special buffering or mitigation measures are needed, assuming these policies are implemented.

Relationship to Berks County

Lebanon County shares the larger portion of its eastern border with Berks County. This border ranges from the Blue Mountain/Kittatinny Ridge in the north across the Great Valley (Cumberland/Lebanon/Schuylkill Valley) to the South Mountain/ Highlands region in the south. Major connecting features include PA Routes 419, 501, 645, 897, US Route 422, Interstate 78, and the Tulpehocken Creek. This region contains well-established Amish and Mennonite farming communities in both counties.

Berks County's Comprehensive Plan, *Berks Vision 2020*, Land Use Plan Map illustrates seven future land use categories along the county's border. Environmental Hazard is used to designate wetlands, floodplains, watercourses, and their associated riparian buffers. Permanent Open Space/Recreation is used to designate state, county, and municipal parkland, recreation facilities, open space areas, as well as municipal water supply watersheds for which a countywide greenway and open space network is advocated. Rural Conservation Areas are used to promote managed production of forest and conservation

of other natural resources. Agricultural Preservation lands are intended to promote effective land use management in support of the agricultural industry. Existing development is shown for farmsteads and occasional residential and commercial parcels and is concentrated only along the Route 422 corridor. Future Growth Areas are shown where development, supported by infrastructure, may take place in the future.

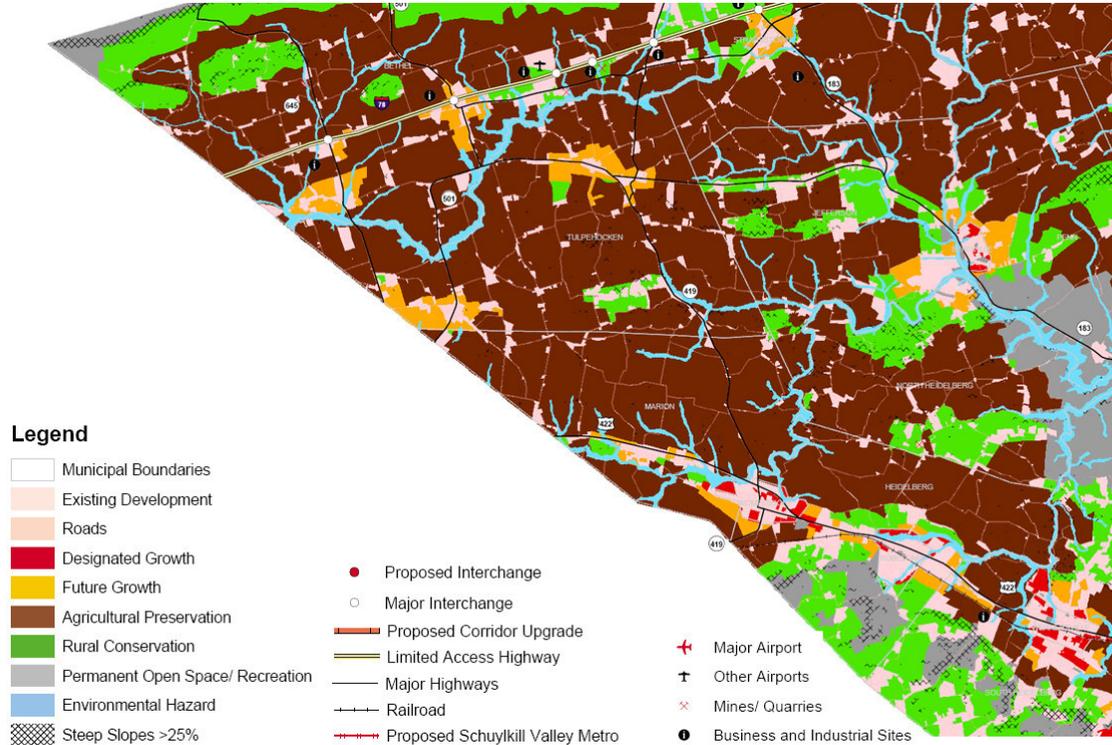


Figure 14-3 Excerpt from Berks County’s Vision 2020 Land Use Plan Map

With a focus on managing land use to sustain the agricultural industry, supporting managed production of forest resources, and protecting sensitive natural areas from development, the land use planning approaches of Lebanon and Berks County are generally consistent in most areas. Two areas may need some additional review and coordination with municipal planning. The first area is the Richland/Newmanstown/Womelsdorf area where planned expansion of infrastructure and development in Lebanon County reaches the county border while in Berks County a narrow strip of Agricultural Preservation land is shown. In conjunction with local municipal planning, the counties should clarify and coordinate intentions for this area. The second area is the Interstate 78 corridor, where Lebanon County anticipates extension of Suburban Business and Suburban Neighborhood to the county line to take advantage of the I-78/ US Route 22 interchange at Fredericksburg, while Berks County designates Agricultural Preservation. This configuration may indeed be effective, if the impacts of development can also be limited, buffered or mitigated in Lebanon County.

Relationship to Schuylkill County

The northernmost portion of Lebanon County's eastern border is shared with Schuylkill County. Swatara State Park, State Game Lands 80 and 211 and Route 443 and Interstate 81 span this border. The Siegrist Reservoir for the City of Lebanon Authority's water supply is located just across the border along Fishing Creek. Intensive development in the region of both counties is quite limited and generally compatible with a rural, forested landscape.

Schuylkill County's Comprehensive Plan was renewed and adopted in 2006. Its growth management plan aims to direct growth "to locations and in a manner that allows the phasing-in of transportation and water and sewer service systems improvements" to manage the public and private investment and costs. It utilizes the growth area approach to designate planned, incremental expansion of developed areas served by infrastructure and public services concurrent with resource conservation and creation of a countywide open space and greenway network.

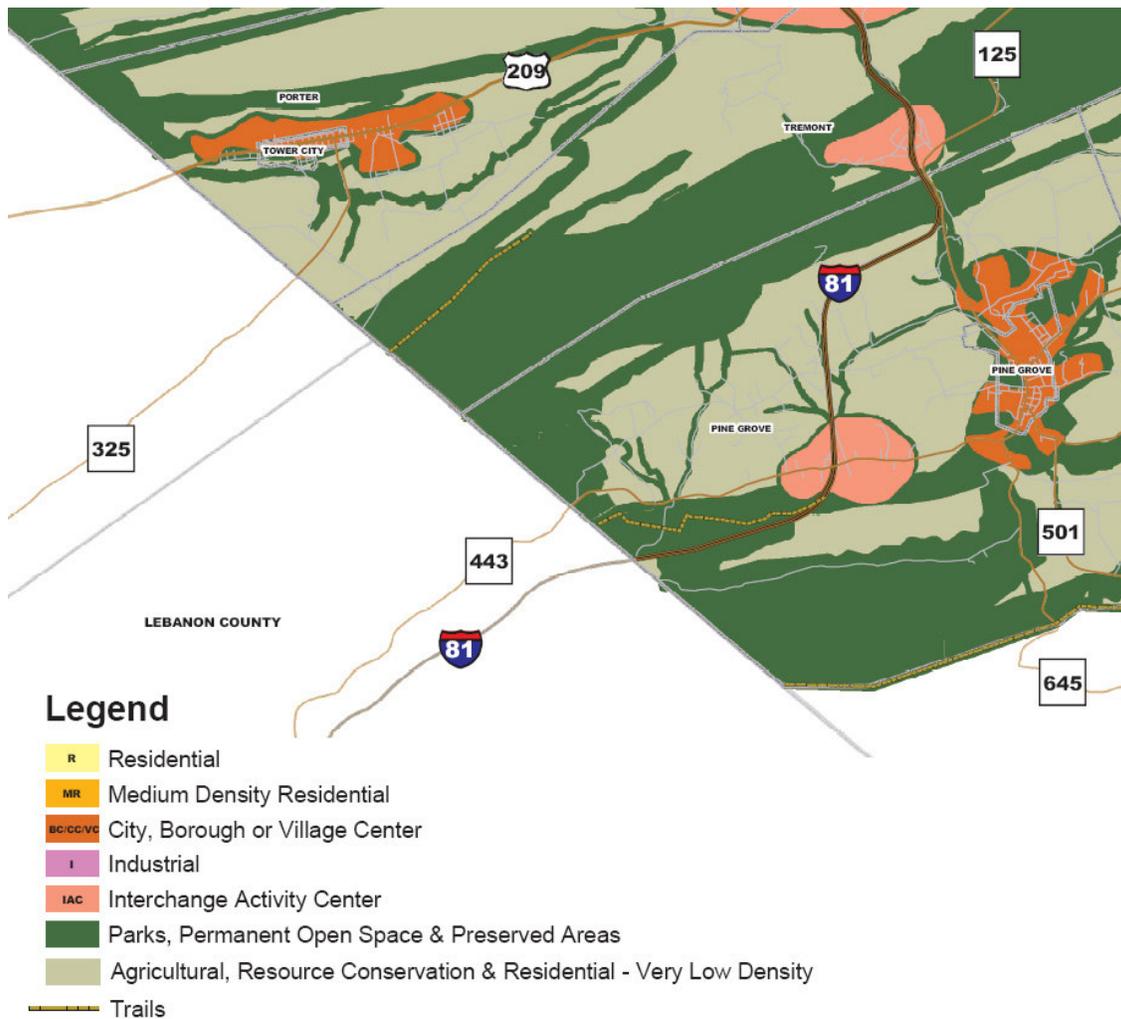


Figure 14-4 Excerpt from Schuylkill County's Land Use Plan Map

The Land Use Plan implies a general discouragement of development within agricultural and wooded areas, coupled with incentives to develop within designated growth areas. Growth areas are shown for Pine Grove, adjoining corridors and the I-81 interchange; however, development in these areas is not likely to impact Lebanon County due to the distance and topography between these locations and the border. Schuylkill County's Land Use Plan map designates the majority of border lands as Park, Permanent Open Space and Preserved Areas, as much of this forested and resource-rich land is owned and managed by the Commonwealth. A small pocket of land along the Interstate 81 corridor is shown as Agricultural, Resource Conservation and Residential – Very Low Density. This combination of uses is very similar to the Rural Resource designation used across the border on Lebanon County's Land Use Policy Map, therefore no special buffering or mitigation measures are needed.

Opportunities and Partners for Regional Planning

Throughout the comprehensive plan, the various planning elements have identified the many common resources, related economies, and interconnected elements of infrastructure that connect Lebanon County to its neighboring counties and the rest of the south central Pennsylvania region. Like Lebanon County, the adjoining counties have identified these systems as integral to their identity and future quality of life and have established policy to sustain or manage them for the greatest benefit to their citizens.

Sound comprehensive planning fully recognizes that these systems are not bounded or controlled by political boundaries. Waters and wildlife travel without concern for land ownership. Businesses take their goods and services to customers in town, across town and out of town. Even man-made infrastructure spans municipal lines to make efficient use of travel corridors and natural water courses. Therefore, planning should look beyond these man-made boundaries in making management and investment decisions.

County and local governments make policy and investment decisions about maintenance and management of these systems, as well other public services and community needs. These decisions are made from each government's perspective and the information each has gathered and analyzed in order to reach such decisions. Regional planning among local municipalities is recommended throughout several elements of the Lebanon County Comprehensive Plan to provide decision-makers with additional and contextual information. Regional planning among counties can likewise promote a shared understanding of community needs, development impacts, and successful practices and incentives for managing regional resources and systems. Again like the local recommendation, cooperative regional planning efforts can range from informal discussions of common trends and issues to envisioning regional change to shared responsibility for action and investment.

Both Pennsylvania and the federal government support regional planning through various agency grant programs. Planning studies, land acquisition, and other capital investments that engage partners across geographic and governmental borders typically compete more effectively for grants than those that address a single municipality.

One organization that grew out of the federal government's regional planning approach is the South Central Assembly for Effective Governance (SCAFEG). Under the Johnson Administration, multi-county planning regions were established in the

Appalachian Mountain region to address changes in the agriculture, steel, rail freight and coal industries. Region 6 included the south central Pennsylvania counties. SCAFEG was transformed in 1998 to a membership-based planning agency facilitating a long term view at community development issues in the region.

Another is the Susquehanna Regional Transportation Partnership (SRTP), a joint effort of the seven metropolitan and rural transportation planning organizations, transit agencies, and chambers of commerce in the region to increase the awareness of transit and ridesharing in south central Pennsylvania. Commuter Services of South Central PA is funded by SRTP and provides help free of charge to commuters and employers looking for better ways, beyond the single occupancy vehicle, to get to and from work. Lebanon County is an active member of this non-profit corporation.

The South Central Caucus of County Commissioners is the forum whereby county commissioners of the eight county south central Pennsylvania region can directly share knowledge and experience with one another. As an affiliate of the County Commissioners Association of Pennsylvania, the caucus meets at CCAP annual conferences and periodically throughout the year. In response to a state initiative for greater coordination of land use, transportation and economic development efforts within and among counties, the caucus will develop a regional action plan in 2008. The regional action plan will explore alternative approaches to shared issues and opportunities for intergovernmental collaboration among as few as two or as many as all eight counties. This process will lead to the identification of projects of regional significance – projects that would yield regional benefits, e.g. job creation, transportation efficiency, and agricultural sustainability. In addition to fostering regional dialogue and working relationships among the counties, the regional action plan is intended to give the state confidence in funding projects prioritized by regional partners.

As Lebanon County pursues its action plans for land use and growth management, economic development, resource protection and the like, particularly those that will apply for state funds, the county should consider adjacent and south central Pennsylvania counties, individually, collectively or through SCAFEG, as potential partners in regional planning. Many other regional organizations exist to draw regional attention to specific issues and have been identified as potential lead or support partners for Lebanon County's action plans. The lists of recommended partners clearly demonstrate that there are other government bodies and private sector organizations that share an interest in the county's vision and goals for its future.

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15

Implementation

Capital Improvements Program 15-2

Priorities for Implementation..... 15-4

Leadership for Implementation 15-8



Once the comprehensive plan is adopted, the real work of turning the plan into action begins. Lebanon County will need to establish both short and long term priorities from among the many worthwhile recommendations. These priorities will need to be advanced over several years for a variety of reasons. First and foremost, extensive human and financial resources will be needed to accomplish the goals of this plan – more resources than can feasibly be allocated within one fiscal year or even within a governing body’s term. Some recommendations will require further detailed study and planning, such as land use planning prior to the ordinance updates. Others will benefit from advance outreach and education; contemporary best practices and model ordinances may require an introduction and examples before local officials are ready to incorporate them into their regulations. Still other recommendations will need investments of time in terms of partnership building and program coordination to prepare for the action to occur successfully.



MPC Requirement: *A discussion of short- and long-range plan implementation strategies, which may include implications for capital improvements programming, new or updated development regulations, and identification of public funds potentially available.*

MPC Article III, Section 301(a)(4.2)

Capital Improvements Program

A traditional capital improvements program contains the schedule and costs of the recommended bricks-and-mortar projects, usually over a five year period. Due to the broad range of community development issues raised through the planning process, the comprehensive plan emphasizes the need for a wider array of planning investments. These investments include physical infrastructure projects but also local land use and resource planning, regulatory revisions, and educational and outreach initiatives on environmental and energy conservation topics, among others. Therefore, Lebanon County’s capital improvements program addresses this inclusive and long term view of community development and resource conservation investment.



The programming of recommendations is detailed within the action plans and summarized below. Two year periods beginning in 2008-2009 are used to program the

recommendations over a ten year planning horizon, structuring recommendations sequentially where needed. The two year periods are intended to distribute the demand for staff and funding over the planning horizon. However, they are not intended to exclude opportunities that arise out of public interest, specialized funding streams, or other unforeseen catalysts to plan implementation. In fact, many recommendations are made in support of the ongoing activities of the county, its departments and existing partners.

The 2008-2009 period focuses on:

- Local land use, infrastructure and resource planning, including education on contemporary development techniques and best practices for conservation,
- Implementation of the hazard mitigation plan,
- Renewed dialogue with the agriculture and food products industry and the wood products industry on the economic development potential of these industries,
- Initiation of an agricultural sustainability strategy,
- Support mechanisms for small business and entrepreneurs and promotion of currently available workforce development tools,
- Expansion of tourism marketing,
- Detailed inventory of select resources, e.g. groundwater recharge areas, historic resources, and infrastructure, e.g. water and sewer systems and recycling centers,
- Promotion of walking and biking for recreation and daily travel,
- Building capacity (developing partnerships and adding staff) for economic development coordination and recreation and open space investment,
- Promotion of community and site design tools for energy efficiency,
- Initiation or expansion of programs and projects to mitigate stream impairments,
- Creation of an aggressive, comprehensive recreation and open space program with county leadership and municipal and school district partnerships, and
- Initiation of environmental mitigation programs, e.g. a wetlands banking program.



Recommendations in the 2010-2011 period emphasize:

- Regulatory updates consistent with county and local planning, including development of stormwater management, riparian buffer and wellhead protection provisions, and expanded public information on the status of planning,
- Countywide water resource study (availability and use of water from supply to discharge/recharge),
- Historic preservation planning,
- Organization of marketable agri-tourism, and
- Promotion of green design techniques for and operations of public facilities.

The 2012-2013 period includes recommendations for:

- The use of additional planning tools, such as the official map,
- Clean-up of brownfield sites,
- Use of on-lot management practices,
- Traffic safety and access studies,
- Economic development planning for the City of Lebanon and other community downtown areas,
- Technical assistance and educational/workforce programs for the agriculture and food products industry and wood products industry,
- Local open space, greenways and recreation planning,
- The structure and cost-effectiveness of public safety services,
- Assessment of telecommunications infrastructure and municipal facilities for adequacy and efficiency, and
- Historic recognition programs.



Recommendations for the 2014-2015 period reflect investment in response to findings from the previous period:

- New access sites to public waterways,
- Trail expansion,
- Integration of recognized historic resources into a heritage tourism initiative,
- Upgrades to municipal facilities, and
- Assessment of energy goals for the future.

Finally, recommendations listed for 2016-2017 represent preparation for review and update of the comprehensive plan.

Priorities for Implementation

To further focus attention on the need for immediate action, the Citizen Task Force and Planning Department compiled a list of priority actions with recognition for the fact that the ultimate selection, prioritization and assignment of leadership to the recommendations will be made by the Lebanon County Commissioners. Reviewing the more than 300 recommendations contained in the comprehensive plan, the Task Force and Planning Department considered which recommendations are most urgently needed and have the potential to demonstrate clear, short term progress for Lebanon County. In other words, these recommendations offer:

- **A Quick Completion**—an action that can be accomplished quickly in whole or in significant part.
- **Momentum**—an action that will build momentum for further implementation and progress.

- **High Impact**—an action that will result in a significant benefit or positive impact relative to the plan’s overall direction.
- **Available, Willing Champion(s)**—an action that has the support of those who will take leadership for advancing an action.

The collaborative effort of the Citizen Task Force and Planning Department staff resulted in a list of priorities for each plan element with Recreation (Greenscapes), Economic Development, Land Use, and Natural Resources receiving the highest number of candidate priorities. At first glance, the list appears ambitious; however, it contains many priorities that do not require major expenditures and totals less than 15% of the cost of all recommendations the Action Plans. Nonetheless, funds will need to be dedicated to these initiatives. Furthermore, when opportunities arise or partners come forward to facilitate cost effective implementation of non-priority recommendations, prompt action be undertaken. Finally, this list is not exhaustive, as there are many other important issues that the county needs to address. As these actions are completed, a new short list of priorities should be identified and programmed.

Table 15-1 Priorities for Implementation

Land Use Priorities	Action Item #	Page
Support (and help fund) municipal and multi-municipal comprehensive planning efforts throughout the county.	1A1	4-29
Facilitate development and growth in desired areas by focusing transportation and utility investments there.	2A2	4-35
Work to sustain agriculture and forestry as viable industries by guiding residential development away from large, scattered developments that fragment productive agricultural and forest lands.	3A1	4-38
Continue farmland preservation efforts. Assess existing agricultural zoning ordinances in comparison to other model agricultural zoning ordinances.	3A4	4-39
Develop an annual report on the implementation progress of the comprehensive plan. This could be prepared as short as a one-page report card or longer multi-page report.	5B1	4-42
Transportation Priorities	Action Item #	Page
Implement Long Range Transportation Plan (LRTP) projects via current and future Transportation Improvement Programs (TIPs).	2A1	6-53
Implement the US Route 422 Congested Corridor Improvement Program (CCIP) Study short-term recommendations.	2A6	6-54
Conduct and/or participate in integrated planning activities and their implementation, including but not limited to congestion management processes, congested corridor improvement program, access management ordinance development, Traffic Impact Study/Highway Occupancy Permit training, airport hazard and clear zoning, scenic byways planning, etc.	3A1	6-57
Coordinate with municipalities and developers on major traffic impact studies and transportation projects.	3A2	6-57

Community Facilities and Utilities Priorities	Action Item #	Page
Support planned modernization and expansion of facilities. Program facility renovation and/or expansion, replacement, or additions based on current projections. Develop siting criteria for new facilities that require land acquisition. Strive to site facilities in designated growth areas to maximize pedestrian access. Continue to renovate facilities for energy efficiency.	1A2	7-22
Continue public education programs to promote waste reduction and recycling, proper disposal of hazardous materials and municipal education regarding enforcement of waste management ordinances.	4A1	7-29
Update of water and sewer planning at the system or local level, specifically completion of water supply studies, small system regionalization, and updates to Act 537 sewage facilities plans.	5A2	7-32
Economic Development Priorities	Action Item #	Page
Develop and implement a comprehensive agricultural sustainability strategy.	1A2	8-26
1. Coordinate municipal long range planning acknowledging farming as a developed land use.		
2. Establish a farmland preservation target, criteria for preservation and permanent funding to achieve target.		
3. Establish a program to educate farmers on financial matters, maintaining operation of existing farms and transitioning farms to new farmers.		
4. Evaluate the feasibility of a county or regional "brand" for products made in Lebanon County. The brand is a logical choice for marketing agricultural, food and wood products that are literally grown in the county but need not be limited to them.		
Increase agri-tourism within the county.	1A3	8-27
1. Identify farms using innovative farming practices.		
2. Establish a heritage farm recognition/certification program.		
3. Establish an historic barn recognition program.		
4. Develop a Blue Ribbon Passport Program for Lebanon County.		
5. Evaluate local designation of agri-tourism routes as scenic byways; consider nomination of appropriate route to the state scenic byways program to qualify for statewide promotion and additional transportation enhancements funding.		
Expand and diversify the promotion efforts of the Lebanon County Tourist Promotion Agency and the Lebanon Valley Expo Center to highlight niche tourism sectors such as heritage tourism, outdoor recreational tourism, agri-tourism and eco-tourism.	1A9	8-29
Develop a city-wide Strategic Economic Development Plan for the City of Lebanon to supplement the 2004 Comprehensive Plan.	1C1	8-32
Continue to foster and encourage public/private partnerships to invest in the City of Lebanon and throughout the county by using available public funding to further leverage private investments.	1D2	8-33

Natural Resources Priorities	Action Item #	Page
Improve surface water quality in streams assessed as impaired to achieve state designated use water quality standards in all streams.	1A1	9-45
Improve aquifer recharge and groundwater quality by identifying significant aquifer recharge areas and developing overlay ordinances to protect and preserve those areas most critical to the groundwater supply.	1A2	9-45
Expand public water and sewer service only to designated growth areas.	1E1	9-49
Coordinate municipal long range planning acknowledging farming as a developed land use.	3A1	9-57
Establish a farmland preservation target, criteria for preservation, and permanent funding to achieve target.	3A2	9-57
Greenscapes (Recreation and Open Space) Priorities	Action Item #	Page
By adoption of this plan, establish a goal of a minimum of 15 acres of parkland per 1,000 residents of Lebanon County	1A1	10-24
Work in partnership with school districts to develop regional parks for active recreation in conjunction with school campuses.	1A3	10-25
Develop and distribute a model mandatory dedication of land ordinance that can be adopted into local and county subdivision and land development ordinances.	1B1	10-26
Consider applying for a block grant from PA DCNR to under-take multi-municipal park, recreation and open space plans.	2B2	10-31
Encourage municipalities to create community-wide greenway networks and connect to the county identified greenways and trails. Focus on encouraging multi-municipal greenway and trail planning.	2B4	10-32
Define and publicize the county's position, which is that the county will not directly provide recreation programs and services but will facilitate and support the efforts of other providers of services.	3A1	10-36
Facilitate close-to-home recreation opportunities by assisting municipalities and school districts in planning parks and recreation systems and services.	3B1	10-36
Provide technical assistance to municipalities regarding parks, recreation facilities, services and grants.	3B2	10-37
Create a program to provide outreach to municipalities and school districts regarding funding, grant rounds and development of grant applications to acquire parkland and develop recreation facilities to be used for close-to-home recreations.	3B3	10-37
Designate a county recreation planner. Designate that the chief role of the county recreation planner regarding county parks and recreation is planning, outreach and partnership development.	4A1	10-43
Create a Leb. Co. Trail Authority. Use the York County Rail Trail Authority as a model.	4B1	10-45

Greenscapes (continued)	Action Item #	Page
Restructure the parks and recreation management study to pair the City of Lebanon with the Lebanon School District rather than Lebanon County.	4C1	10-47
Consider a Lebanon County Parks, Recreation and Open Space Program. Using a bond program, the county could provide financial support to match grants for multi-municipal parks, recreation and open space planning, land acquisition, conservation easements, and trails. For communities with enough parkland, funds could be used for facility development.	5B1	10-49
Explore the dedication of a portion of the hotel tax for parks and recreation efforts related to tourism. Consider developing a grant program through the hotel tax to municipalities and organizations that would create attractions or sites that foster tourism.	5B3	10-50
Historic Resources Priorities	Action Item #	Page
Develop an historic resources inventory that includes recognized and potential historic resources as a foundation for an historic preservation plan.	1A1	11-12
Establish a County Historic Commission to advise the County Commissioners on historic preservation matters and to enable the county to apply for Certified Local Government Status.	1A2	11-12
Develop an historic preservation plan that prioritizes critical resources for immediate or near-term action and identifies protection measures or options for historic resources.	1B1	11-14
Housing Priorities	Action Item #	Page
Establish the following density targets in conjunction with municipalities: <ul style="list-style-type: none"> • 6.5 dwelling units per acre in areas served by public infrastructure • 1 dwelling unit per 1.5 acres in areas not served by public infrastructure. 	1A1	12-33
Meet with local builders' association, realtors, developers, etc. to gauge interest in various housing initiatives.	1A3	12-34
Revise regulations to encourage and require neighborhood amenities such as sidewalks, walking and biking trails, and streetscapes appropriate to urban, suburban, and rural areas.	1C3	12-38
Energy Conservation Priorities	Action Item #	Page
Revise regulations to encourage and require neighborhood amenities such as sidewalks, walking and biking trails, and streetscapes appropriate to urban, suburban, and rural areas.	1F1	13-22
Develop a best practice tipsheet for fleet management for local governments that includes guidelines for the purchase of hybrid or alternative fuel cars, increased preventative maintenance, and consolidation or elimination of use for certain trips.	1F5	13-24

County Leadership for Plan Implementation

As stated earlier, the Lebanon County Board of Commissioners ultimately direct implementation of the comprehensive plan. Yet, the range of recommendations and the need to address wide ranging policy, services, regulation, and volunteer practices in the county presents a formidable agenda. Therefore, the county will need to target its own investment and engage a variety of general and special interest partners in advancing this plan.



Lebanon County can direct implementation of portions of the comprehensive plan through the annual programming and budgeting of its various departments and agencies. For example, land use, open space, and recreation planning recommendations tend to align with the mission of the Planning Department and natural resource recommendations better align with the Conservation District. Data and trend monitoring, as well as educational initiatives, could be integrated within the existing responsibilities of these county departments.

The county can foster implementation of certain recommendations through financial incentives. Local comprehensive, infrastructure, and service planning could be encouraged by developing a pool of county funds designated for this purpose. Adams, Berks, and Cumberland Counties have incentivized local planning by providing all or a portion of the local match needed for state planning grants. Financial incentives can also be made available to the private sector, including individual property owners, through tax adjustments or simple payments. For example, Snyder County has developed a program to encourage creation of vegetated riparian buffers on farmlands by offering establishment and annual maintenance payments in return for minimal disturbance to these sensitive land areas.

The county should also seek implementation assistance from public and private sectors partners. Four state agencies have already been involved in the development of the comprehensive plan and are familiar with its recommendations.



Continued discussions of priorities and potential technical assistance and funding programs can lead to state investment in the county's envisioned future. Peer

counties across south central Pennsylvania can also offer policy coordination, previous experience and grant support, particularly when recommendations address natural resources and man-made systems that cross county boundaries. Public school districts are another public partner that can play a key role in the continued development of the

county and the values and ethics of development and conservation in future generations. Finally, local governments are essential partners for implementing the comprehensive plan. The foundation laid by the county's strong working relationship with many of its municipalities can be built upon and expanded. This relationship currently focuses on development review but is recommended to include greater coordination and consistency in local planning, ordinance administration and enforcement, and grant application and administration, even when duties are carried out by multiple agencies. Beyond the many public sector partners, the county can also engage local business and industry to provide private sector perspective and support, such as from private service providers, developers, etc.

Finally, progress can be made through education and outreach to the general public, for these are the property owners, business entrepreneurs and managers, travelers, residents and visitors that make Lebanon County a living community. Providing them with information on how they can make personal and business decisions to support and sustain the economy and the environment appeal to the citizen's sense of community and civic pride. Empowering citizens to take action for themselves and their communities in coordination with county leadership brings implementation back to the heart of the planning process – the public.

