

Comprehensive Plan

The Lehigh Valley ... 2030

Open Space Preservation



Community Renewal



Orderly Growth



Improved Infrastructure

Lehigh and Northampton Counties, PA

Lehigh Valley Planning Commission

Lehigh Valley Planning Commission
961 Marcon Boulevard, Suite 310
Allentown, Pennsylvania 18109-9397
Telephone: 610-264-4544
Toll Free: 888-627-8808
Fax: 610-264-2616
Email: lvpc@lvpc.org
Website: www.lvpc.org

Comprehensive Plan

The Lehigh Valley ... 2030

Lehigh and Northampton Counties, PA

Prepared By: Lehigh Valley Planning Commission

Adopted: April 28, 2005

Data and Map Updates: June 2010

LEHIGH COUNTY

Adopted: June 22, 2005

Lehigh County Executive

Jane R. Ervin

County Commissioners

James L. Kelly, Chair
Nicholas E. Englessen, Vice Chair
Kurt J. Derr
Percy H. Dougherty
Joan L. Fredericks
Marc J. Grammes
Daniel K. McCarthy
Sterling H. Raber
Andy Roman

NORTHAMPTON COUNTY

Adopted: June 16, 2005

Northampton County Executive

Glenn F. Reibman

County Council

J. Michael Dowd, President
Margaret Ferraro, Vice President
Ron Angle
Michael F. Corriere, Esq.
Mary Ensslin
Wayne A. Grube
Ann McHale
Timothy B. Merwarth
Nick R. Sabatine, Esq.

This report was financed by appropriations from Lehigh and Northampton counties and by a grant from the Commonwealth of Pennsylvania, Department of Community and Economic Development.

CONTENTS

<u>Chapter</u>	<u>Page</u>
EXECUTIVE SUMMARY	vi
LEHIGH VALLEY PLANNING COMMISSION MEMBERS.....	viii
LETTER FROM THE CHAIR	ix
THE LEHIGH VALLEY PLANNING COMMISSION.....	x
ORGANIZATION CHART	xi
INTRODUCTION	1
PUBLIC INPUT FOR THE COMPREHENSIVE PLAN UPDATE	3
Public Opinion Land Use Survey	3
Workshops on the Plan Update.....	4
Consultation with School Districts and Other Agencies.....	4
Ad Hoc Committee on Agricultural Preservation	4
Ad Hoc Committee on Urban Issues	5
GROWTH TRENDS AND FORECASTS	6
Regional Population Growth	6
Population Characteristics	7
Municipal Population Growth	7
Employment Growth	9
Land Use	9
NATURAL RESOURCES PLAN	11
Rivers and Streams	11
Stream Quality Designations	12
Riparian Buffers.....	12
Floodplains	17
Wetlands and Hydric Soils.....	18
Steep Slopes	18
Carbonate Geology	21
Woodlands.....	21
Natural Resources Plan.....	25
Other Natural Resource Protection Projects	29
FARMLAND PRESERVATION.....	30
LAND USE	37
General Trends and Patterns for Development in the Lehigh Valley	37
Regional Land Use Plan.....	38
Cities and Boroughs	43
Suburban Townships.....	47
Rural Townships.....	49
Land Uses of Regional Significance.....	51
ECONOMIC DEVELOPMENT.....	54
Mineral Extraction.....	56

CONTENTS (cont'd)

<u>Chapter</u>	<u>Page</u>
HOUSING	60
TRANSPORTATION	66
Highways	66
Public Transportation	75
Railroads	77
Air Transportation.....	79
Bicycles and Pedestrians.....	81
Clean Air Act/Air Quality Compliance	82
COMMUNITY UTILITIES.....	84
Sewage Disposal.....	84
Water Supply Plan	87
Stormwater Management	92
Solid Waste.....	94
PARKS AND RECREATION	96
Scenic Resources.....	99
HISTORIC PRESERVATION	104
STATEMENT OF PLAN INTERRELATIONSHIPS	110
STATEMENT REGARDING PLAN RELATIONSHIP TO PLANS FOR ADJACENT COUNTIES AND LOCAL MUNICIPALITIES	111
SUPPLEMENTAL PLANNING ACTIVITIES	114
APPENDICES	116
Appendix A: Glossary	116
Appendix B: Lehigh Valley Surface Transportation Plan: 2011–2030	121
Appendix C: Resolution #7-01, November 29, 2001	122
Appendix D: Resolution 2-05, April 28, 2005	124
Appendix E: Lehigh County Commissioners Bill 2005 - No. 64, Ordinance 2005 - No. 167 ...	125
Appendix F: Northampton County Resolution Number 20-05	128
Appendix G: Resolution 2-10, January 28, 2010	130
MODEL REGULATIONS AND SUPPLEMENTAL PLANNING STUDIES	133

TABLES

<u>Table</u>	<u>Page</u>
1 Highest Municipal Population Growth Lehigh Valley Municipalities: 1990–2000	7
2 Official LVPC Population Forecasts	8
3 General Land Use Categories	44
4 Land Uses of Regional Significance	51
5 Suggested Residential Densities Units Per Net Acre (with public water and sewer).....	62

TABLES (cont'd)

<u>Table</u>	<u>Page</u>
6 Lehigh Valley Rates of Growth (1990–2000)	66
7 Lehigh Valley Mode to Work Comparison	66
8 Projected Park and Open Space Acreage Needs — 2020	96
9 Properties Listed on the National Register of Historic Places	106

GRAPHS

<u>Graph</u>	<u>Page</u>
1 Net Migration by Decade, Lehigh Valley, Lehigh Co., Northampton Co.	6
2 Population Growth Projections, Lehigh Valley, Lehigh Co., Northampton Co.	6
3 Population Growth 1990–2000, USA, PA, NJ, Selected Counties	6
4 Population Change by Age Group 2000–2003	7
5 Household Growth by Age Group 2000–2003 (deleted May 6, 2010)	7
6 Employment Trends Lehigh Valley 1970–2030	9
7 Change in Major Land Uses 1980 & 2030	10
8 Poverty Rates 1979, 1999	60

MAPS

<u>Map</u>	<u>Page</u>
1 Regional Setting	xii
2 Surface Terrain	13
3 Stream Quality	15
4 Floodplains and Wetlands	19
5 Steep Slope & Carbonate Geology	22
6 Woodlands	24
7 Important Natural Areas	26
8 Natural Resources Plan	27

MAPS
(cont'd)

<u>Map</u>	<u>Page</u>
9 Urban Development on Prime Agricultural Soils Year 2002.....	31
10 Agricultural Easement Purchases/Agricultural Security Areas	32
11 Farmland Preservation Plan	33
12 Existing Land Use — 2001	39
13 Municipal Zoning	41
14 General Land Use Plan	45
15 Classification of Municipalities.....	48
16 Major Industrial, Office, and Mineral Extraction Areas	57
17 Housing Types	63
18 Transportation Facilities	67
19 Congested Corridors	68
20 Crash Corridors	69
21 Transportation Plan.....	73
22 Public Sewer Service Areas	85
23 Community Water Supply Service	89
24 Stormwater Management Plans PA Act 167.....	93
25 Parks & Outdoor Recreation 2003.....	97
26 Park and Recreation Plan.....	101
27 Properties Listed on the National Register of Historic Places	107

EXECUTIVE SUMMARY

June, 2004

Based on public opinion surveys, workshops and information provided to the Lehigh Valley Planning Commission at numerous meetings the major planning issues in the Lehigh Valley are as follows:

- preservation of farmland
- preservation and protection of natural features
- redevelopment of old industrial sites including brownfields
- renewal and revitalization of the cities
- development of more parks and recreational facilities
- upgrade roads and intersections

This comprehensive plan advocates measures to achieve these and other goals relevant to conservation, development and redevelopment in the Lehigh Valley in the next 25 years. Following are major points made in the plan.

The Lehigh Valley population growth forecast is 700,000 by 2030. Much of this growth will be in suburban townships on the perimeter of Allentown, Bethlehem and Easton. However, there is considerable evidence that residential growth is pushing faster and deeper into rural agricultural areas with each passing year. In the 1990s and early 2000s about 3.5 square miles per year were converted from farms and other open space to urban land uses. This rate will likely increase to between 4 and 4.5 square miles per year in the future. By 2030 about 55% of the Lehigh Valley will be urban, compared with about 40% in 2000. Sprawl is a growing problem.

This plan identifies major natural resources that should be conserved based on careful studies by the Lehigh Valley Planning Commission, The Nature Conservancy and others. These resources include over 200 miles of cold water streams and lands adjacent to them, wetlands, and major concentrations of wooded hills and mountains. In addition to natural resources the plan proposes agricultural preservation in areas with prime agricultural soils that are near places that have already been designated for agriculture by agricultural security agreements and conservation easements acquired by the counties. Not all agricultural land can be saved. This plan establishes the goal of preserving approximately 25% of the land in the Lehigh Valley for agriculture.

Most urban development is recommended in the cities, boroughs and townships along a corridor that extends from Easton to western Lehigh County. Smaller concentrations of urban development are located in peripheral areas north and south of the corridor. In general public

sewer and public water is available in designated urban areas. Where these utilities are not existent, it may be necessary to make extensions in the future. Major highway and transit service is also located in major urban and urbanizing areas. Most future transportation improvements should be made in designated urban areas in the future. Except for areas in and around center city locations and some scattered sites in the suburbs most housing in urban areas is low density single family housing. This plan recommends higher residential densities and greater variety in housing types.

Many areas in the Lehigh Valley are designated for future rural uses. It will be a challenge to keep these places rural in the future. Today they are a mixture of agriculture, low density residential, cement and slate quarries, and scattered business uses. If current development practices continue many of these areas will gradually change into low density urban places where it will be difficult to manage traffic and extend other services. Areas adjacent to the recommended urban corridor may gradually be consumed by it. Others may retain some rural character if land consumption is kept low, public sewers are kept out, conservation design concepts are used and natural resources and agriculture are preserved.

Completion of Route 222, construction of the American Parkway bridge, and completion of Route 412 improvements on the Bethlehem southside are projects that should alleviate congestion in western Lehigh County and improve access to downtown Allentown and Bethlehem. After completion of these projects the major transportation problem will be to address safety and capacity problems in the Route 22 corridor. In 2004 preliminary design studies were begun to determine solutions to these issues. Some congestion and safety problems of roads leading into Route 22 will also require further study. Many municipalities will need to consider access management strategies to minimize the impact of land development on local roadways as it is unlikely there will be sufficient federal and state transportation funds to add capacity to all roads that may need to be widened. It is expected that bus service will continue to be the primary mode of transit service for the foreseeable future.

The comprehensive plan also contains sections on economic development, community utilities, parks and historic properties. The Lehigh Valley Planning Commission supports economic development efforts that will provide above average paying jobs and strengthen the tax base of municipalities with declining tax bases.

The Commission believes that economic development programs must be joined with community development efforts to achieve these tasks. Brownfield redevelopment, urban renewal, downtown revitalization and infill are all important strategies to rebuild old urban areas.

Public sewer, water, stormwater management and solid waste policies are recommended in the plan. The policies are based on past studies and plans prepared by the Lehigh Valley Planning Commission. Public sewer and water infrastructure should be provided in most areas designated for urban development in the plan. On-site systems are generally advocated in rural and agricultural areas. The plan advocates that local municipalities pay particular attention to development of consistent land use and sewage facilities policies in their comprehensive plans, zoning ordinances, and Act 537 sewer plans. Consistency between land use and public water systems is also emphasized in the water supply component of this plan. The plan advocates that municipalities implement groundwater source protection measures based on the LVPC model wellhead protection ordinance, interconnection of municipal water systems, water conservation programs, metering of water usage, and improvement of water systems based on Federal Safe Drinking Water Act requirements.

The LVPC has long been involved in stormwater management planning as mandated by the Pennsylvania Stormwater Management Act, Act 167. The Commission has prepared plans for all watersheds in Lehigh and Northampton counties and is now working on water quality updates to these plans in order to meet certain requirements of the National Pollutant Discharge Elimination System. The Commission intends to continue this work in the future.

Both Lehigh and Northampton counties have prepared solid waste plans to meet the requirements of Pennsylvania Act 101. Although the Commission is not substantially involved in solid waste planning, solid waste projects are submitted to LVPC by the Pennsylvania Department of Environmental Protection for review. The main object of LVPC review is to assure consistency between solid waste disposal proposals, land use, and stormwater management plans.

The county park and recreation plans have been prepared and monitored by the LVPC staff since the early 1970s. In recent years the voters in both Lehigh and Northampton counties have supported the provision of funds for expanding parks, acquiring natural areas and preserving farmland. The Lehigh Valley Planning Commission strongly supports these programs. The Commission recommends that the counties and municipalities

undertake open space and park acquisitions. Municipalities should be responsible for providing mini-parks, neighborhood parks, playgrounds and community parks. The counties should acquire large county parks, regional parks, regional park reserves and conservancy areas. High priority should be given to acquiring parkland and open space along rivers and major streams. In addition counties and municipalities should preserve important historic buildings, structures and sites.

In summary key development concepts advocated in this plan are:

- conservation of important natural areas and conservation of farmland;
- new growth contiguous with major existing urban areas;
- new growth in designated urban areas where community utilities already exist or can be expanded;
- increased residential densities in designated urban areas;
- no urban growth in areas designated for natural resources or farmland;
- better use of tools already authorized in the Pennsylvania Municipalities Planning Code;
- extensive infill, redevelopment and reuse of properties in cities and boroughs;
- combined economic and community development efforts to provide well paying jobs and improve the tax base of municipalities in distress;
- continued development of transportation facilities, community utilities and public parks to meet the needs of the region as it grows in the future.

Creating orderly patterns of development, curbing sprawl, and revitalizing urban areas are all difficult goals to achieve. Effective zoning laws and a commitment of large sums of public and private funds to acquire open space and redevelop urban space will be required to achieve these goals. Planning agencies like the Lehigh Valley Planning Commission can make recommendations; but municipal and county elected officials make the laws and provide the funding for implementation. Hopefully, municipalities and the counties will undertake appropriate implementation actions to carry out the plan. There are signs that some Lehigh Valley municipalities are willing to take action. Both counties are involved in open space acquisition programs. Renewal and revitalization efforts are underway in the three cities and a number of boroughs. Multimunicipal planning programs are underway in five areas in the Lehigh Valley. These are promising indications of growing intermunicipal cooperation and municipal action to implement goals and policies in this plan.

LEHIGH VALLEY PLANNING COMMISSION

May 2010

Steven L. Glickman, Chair
Robert A. Lammi, Vice Chair
Kent H. Herman, Treasurer

Ron Angle
Norman E. Blatt, Jr., Esq.
Becky Bradley (Alternate)
Dean N. Browning
John B. Callahan
Bruce Cameron
Donald Cunningham
Michael D. D'Amore
John N. Diacogiannis
Karen D. Dolan
Percy H. Dougherty
Liesel Dreisbach
Cindy Feinberg (Alternate)
Charles L. Fraust
George F. Gemmel
Matthew Glennon
Armand V. Greco
Michael C. Hefeale (Alternate)
Darlene Heller (Alternate)

Nils Hovik
Benjamin F. Howells, Jr.
Edward D. Hozza, Jr.
Terry J. Lee
Ronald W. Lutes
Earl B. Lynn
Ross Marcus (Alternate)
Kenneth M. McClain
Thomas J. Nolan
Salvatore J. Panto, Jr.
Edward Pawlowski
Stephen Repasch
Michael Reph
Vincent P. Smith
Ronald E. Stahley
John Stoffa
Glenn M. Taggart
Andrew Twigg
Donna Wright

LEHIGH VALLEY PLANNING COMMISSION STAFF

Michael N. Kaiser, AICP
Geoffrey A. Reese, P.E.
Olev Taremäe, AICP
Joseph L. Gurinko, AICP
Thomas K. Edinger, AICP
Lynette E. Romig
Susan L. Rockwell
Michael S. Donchez
David P. Berryman
Teresa Mackey
Travis I. Bartholomew, EIT
Wilmer R. Hunsicker, Jr.
Bonnie D. Sankovsky
Anne L. Esser, MBA
Alice J. Lipe
Kathleen M. Sauerzopf

Executive Director
Assistant Director
Chief Planner
Chief Transportation Planner
GIS Manager
Senior GIS Analyst
Senior Environmental Planner
Senior Transportation Planner
Senior Planner
Senior Planner
Stormwater Planner
Senior Planning Technician
GIS Technician
Administrative Assistant
Senior Planning Technician
Secretary

Lehigh Valley Planning Commission
(610) 264-4544; Fax: (610) 264-2616
Email: lvpc@lvpc.org; Web: www.lvpc.org



STEVEN L. GLICKMAN
Chair

NILS HOVIK
Vice Chair

TERRY J. LEE
Treasurer

MICHAEL N. KAISER
Executive Director

LEHIGH VALLEY PLANNING COMMISSION

961 MARCON BOULEVARD, SUITE 310, ALLENTOWN, PENNSYLVANIA 18109-9397

610-264-4544 FAX 610-264-2616

TOLL FREE 888-627-8808

April 28, 2005

Dear Lehigh Valley Resident:

On behalf of the Lehigh Valley Planning Commission I am pleased to present this comprehensive plan for the Lehigh Valley.

Under Pennsylvania law counties are required to have a comprehensive plan which is updated every 10 years. This report is an update of the comprehensive plan adopted by Lehigh and Northampton counties in 1993. Municipal comprehensive plans are required to be generally consistent with the county comprehensive plan.

This plan documents and addresses the many comments we received in our public opinion survey and in public meetings over the past four years. The plan prioritizes important natural and agricultural areas for future preservation. It identifies rural areas and major areas where urban growth and appropriate infrastructure should be developed in the future. The plan also recommends measures that should be taken to renew and redevelop older urban places in the Lehigh Valley. Throughout, this plan relies on data and mapping resources which the Lehigh Valley Planning Commission has created since 2000.

We appreciate the advice that Lehigh Valley citizens, municipalities and organizations have provided. We have endeavored to heed that advice in the creation of this plan. It is our intent to work diligently on the implementation of the plan in the coming years.

Yours truly,

Steven L. Glickman, Chair

THE LEHIGH VALLEY PLANNING COMMISSION

The Lehigh Valley Planning Commission (LVPC) consists of 37 members in the following categories: County Executive of each county, one Councilman from Northampton County, one County Commissioner from Lehigh County, the Mayors of Allentown, Bethlehem and Easton, one member from each City Council (Easton and Bethlehem alternate annually), five members from each county to represent boroughs and townships, nine at large citizen members from each county. Except for members appointed because of their office, all members are appointed by the County Executive of each county.

In 1961 the County Commissioners of Lehigh and Northampton counties created a planning commission for each county. In 1967 the Joint Planning Commission was created through a merger of these county planning commissions operating with a single staff. The Joint Planning Commission changed its name to the Lehigh Valley Planning Commission (LVPC) in 1997. The change was made to give more explicit recognition to the growing regional identity of the Lehigh Valley and the long term focus of the LVPC on regional growth issues.

The LVPC is organized into four committees: Executive Committee, Environment Committee, Comprehensive Planning Committee, Transportation. Work by the 19 member staff is screened by the committees then presented to the Commission at its monthly meeting. The Executive Committee is the administrative arm of the planning commission. It deals with budget, finances and staff matters. The Environment Committee reviews water, sewer, stormwater management and other environmental projects. The Comprehensive Planning Committee reviews subdivision plans and studies of land use and housing issues. The Transportation Committee deals with highway and transit planning in the Lehigh Valley.

Since its creation the LVPC has managed an active planning program that covers a wide variety of topics including the following: environment and

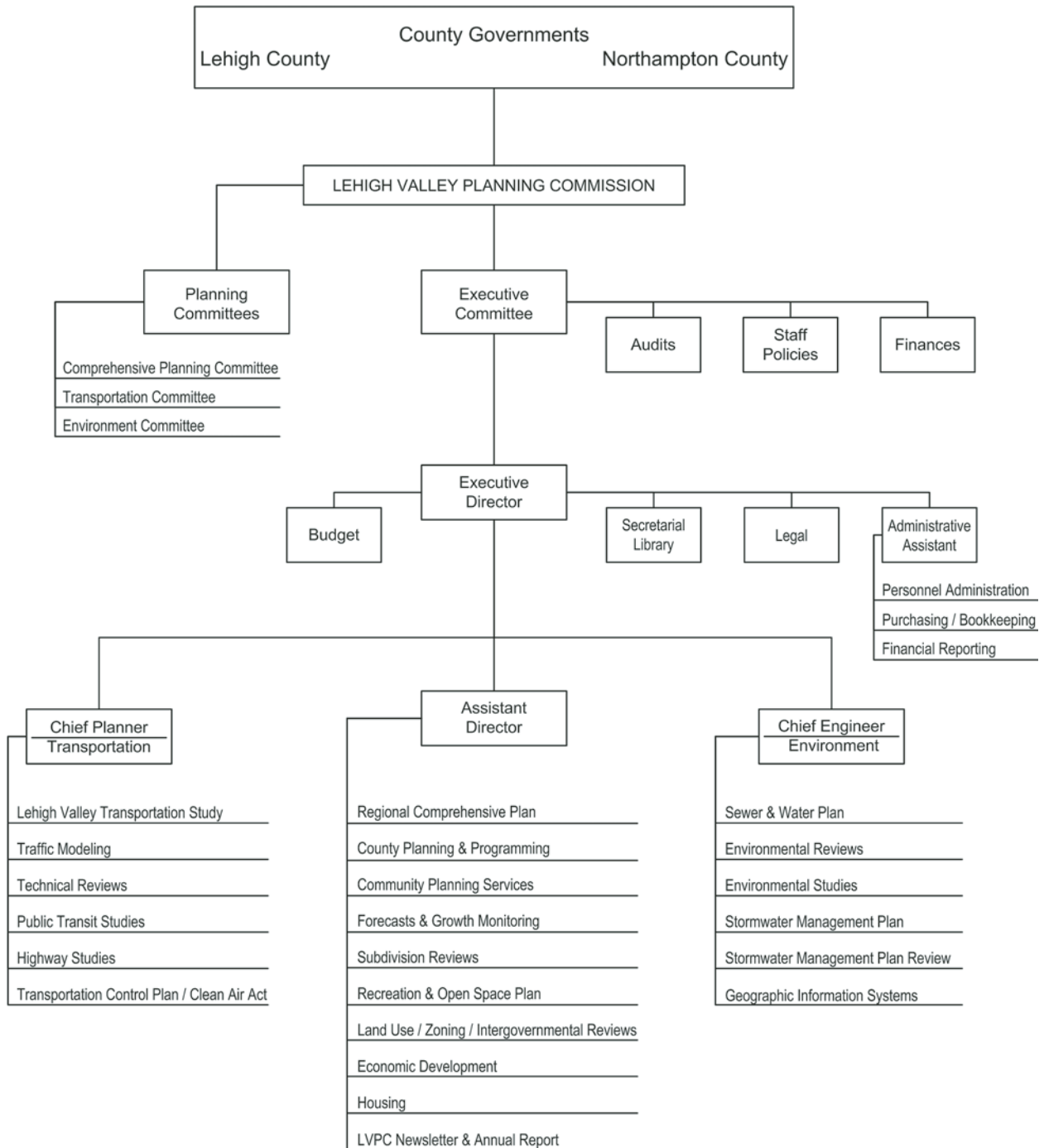
ecology, transportation, sewer, water, stormwater, energy conservation, parks and recreation, economic development, housing, municipal planning, zoning, subdivision regulations, codes enforcement, government management, geographic information system and many other topics. The presentation of these topics conforms with the requirements of Pennsylvania planning law and contemporary theories concerning content and construction of a county comprehensive plan.

Development of a county comprehensive plan is mandated by the Pennsylvania Municipalities Planning Code (MPC). However, county planning commissions are primarily advisory bodies that are not given much authority to implement a comprehensive plan under the MPC. Although counties are authorized to administer county zoning ordinances and subdivision regulations, such regulations at the county level are repealed when a municipality adopts a local ordinance. Municipalities create and administer comprehensive plans, local building permits, zoning ordinances and in most cases subdivision regulations. Under the MPC municipal plans are required to be generally consistent with the county comprehensive plan.

There is no county zoning ordinance in Lehigh or Northampton counties. Both counties have subdivision regulations. But these regulations cover only Slatington in Lehigh County and the boroughs of Freemansburg, West Easton, Glendon, East Bangor, and Chapman in Northampton County. The LVPC also does stormwater management plans for Lehigh and Northampton counties to meet requirements of Act 167, the Pennsylvania Stormwater Management Act and technical studies for PENNDOT to meet federal transportation planning regulations.

This is the fifth major update of the Lehigh Valley comprehensive plan. Upon completion, it will be submitted to Lehigh and Northampton counties for adoption. It will then be the responsibility of LVPC to advise local municipalities and other organizations of the recommendations of the plan.

LEHIGH VALLEY PLANNING COMMISSION ORGANIZATION CHART

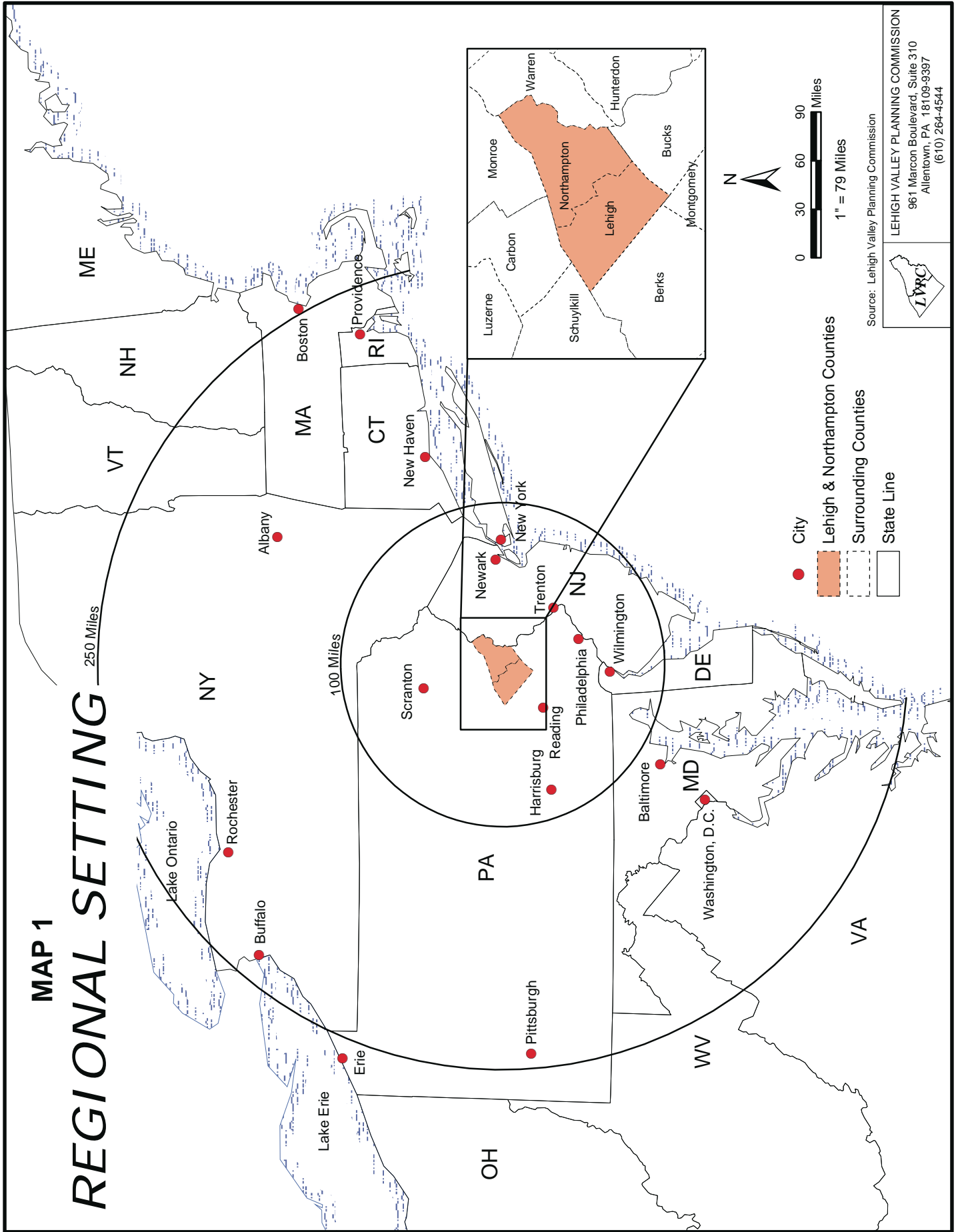


MAP 1

REGIONAL SETTING

250 Miles

100 Miles



0 30 60 90 Miles
1" = 79 Miles

- City
- Lehigh & Northampton Counties
- Surrounding Counties
- State Line

Source: Lehigh Valley Planning Commission

LEHIGH VALLEY PLANNING COMMISSION
961 Marcon Boulevard, Suite 310
Allentown, PA 18109-9397
(610) 264-4544



INTRODUCTION

The Lehigh Valley is a 730 square mile region in eastern Pennsylvania. The Valley is located about 80 miles west of New York City and 50 miles north of Philadelphia. These cities and their surrounding market areas exert strong economic, demographic, and social impacts on the region.

In the 1730s Scotch-Irish and German settlers began the agricultural development of the Lehigh Valley. During the 19th and 20th centuries canals, railroads, and highways coupled with the manufacturing of steel, cement, heavy trucks and chemicals continued to transform the economy and the landscape. Today the region is home to nearly 635,000 people. Growth, development and immigration continue patterns of change that began 300 years ago.

There are 62 municipalities in the Lehigh Valley which include 3 cities, 27 boroughs and 32 townships. In addition there are 17 school districts. Most of the major decisions with regard to planning, zoning, sewer, water, park development and local roads are made by the municipalities. In Pennsylvania county authority with respect to planning is primarily advisory. Most major roads in the Lehigh Valley are built and maintained by PENNDOT. Planning for major highways and transit is done through a cooperative organization called the Lehigh Valley Transportation Study, a partnership of state and local officials mandated by federal legislation.

The mission of the LVPC is to create a comprehensive plan to guide orderly growth in the Lehigh Valley. In undertaking this mission the LVPC carries out the following activities:

- Development of a comprehensive plan promoting orderly growth, development and redevelopment of the Lehigh Valley;
- Coordination of county and municipal plans for development and redevelopment;
- Define measures to improve the social and economic climate of the region;
- Encourage appropriate land use through implementation of the regional comprehensive plan;
- Encourage the maximum use of existing infrastructure and to plan new infrastructure

as needed to fulfill the goals of the regional comprehensive plan;

- Promote the conservation of land, water and air and preserve unique historic and natural resources;
- Plan for the resolution of traffic congestion and traffic safety problems in the Lehigh Valley;
- Collect and distribute useful regional data;
- Offer technical planning assistance to Lehigh Valley governments and institutions.

Many recommendations of this comprehensive plan reflect ideas that have been presented in earlier editions. In the course of preparing this plan, the Lehigh Valley Planning Commission has interviewed and met with local municipal officials and citizens, conducted a public opinion poll, held public meetings and public hearings as prescribed by law, and transmitted the draft plan to local jurisdictions for review.

The comprehensive plan deals mainly with the future physical environment of the Lehigh Valley between 2000 and 2030. The plan presents a balanced program of environmental, economic and developmental proposals. This recognizes the fact that the Lehigh Valley is a mixture of agricultural, rural, suburban and urban features. The plan starts by reporting on public opinion researched in a public opinion survey. Next the plan describes basic forecasts about future growth. It then outlines proposals for natural resource and agricultural preservation. Sections on land use, economic development, housing, transportation and community facilities follow. These sections detail measures that need to be taken to assure compatibility between preservation, development and infrastructure. Finally, the plan presents a section on historic preservation.

Since the adoption of the 1993 plan by Lehigh and Northampton counties two factors have developed that will influence implementation of comprehensive plans in the future. The first factor is public attitudes concerning planning priorities and the second is a change in the Pennsylvania Municipalities Planning Code. Spurred by growing public concerns about traffic congestion and loss of open space many communities have given consideration to so-called "smart growth" development practices.

Largely, these practices are advocated to combat problems of “sprawl.” Community planners have long recognized “sprawl” and advocated “smart growth”. The major new element is the attention given to these matters by the media and the general public. Evidence of sprawl can be seen in the Lehigh Valley as: large expanses of outwardly expanding low density residential uses, leapfrog development, commercial strip development along roadways, development of small water and sewer systems to serve individual developments, and isolated individual residential developments dispersed across rural landscapes.

The “smart growth” response to “sprawl” focuses on a wide variety of measures that range in scale from subdivision design and site development measures to measures that require multimunicipal cooperation and some degree of influence over land development by county government. The LVPC believes sprawl is a regional development issue requiring action beyond the boundary of each municipality. Some regional smart growth measures include:

- implementation of regional growth boundaries or regional urban service areas;
- increased urban densities and urban infill;
- workable agricultural and natural resource protection measures in the rural areas;
- no public sewer, water or major roadways in agricultural areas;
- brownfield redevelopment;
- multimunicipal planning;
- improved levels of transit service in urban areas;
- enhanced cultural and environmental amenities in urban areas.

Many of these measures have been a part of the LVPC comprehensive county plans since the 1960's. They are all difficult to implement.

The second factor was development of a new Municipalities Planning Code. In the early 1990's the Pennsylvania legislature embarked on a major legislative initiative to revamp the Pennsylvania

Municipalities Planning Code to deal more effectively with problems of urban sprawl. A number of the best measures for growth management were weakened or defeated. These measures included expanding the powers of counties to deal with growth management issues, strong requirements for consistency between municipal and county plans, county authority over developments of regional significance, and mandatory concurrency of development and infrastructure improvements. Vestiges of these provisions are in the planning code, but they are weak reflections of the original proposals.

On the other hand Pennsylvania's commitment to funding planning, particularly multimunicipal planning was expanded. Communities who adopt multimunicipal plans and modify local ordinances accordingly are given a measure of protection from developer initiated lawsuits alleging exclusionary zoning practices. Planning authority for natural resource protection and agricultural protection measures were expanded. As a result six multimunicipal plans are now existant in various parts of the Lehigh Valley. The plans cover northwestern and southwestern Lehigh County, the Bangor area, Wind Gap area, Nazareth area, and the Hellertown/Lower Saucon area in Northampton. The LVPC designed work programs for three of these efforts, managed consultants for two plans and is doing the technical planning work for ten municipalities in the Nazareth area. Whether or not these efforts will improve the quality of planning or help contain sprawl remains to be demonstrated. The Lehigh Valley Planning Commission will continue to work with those municipalities and groups interested in solving growth problems.

This report was adopted by Lehigh and Northampton counties in June, 2005. In May 2010 minor changes to the report were made to update new population forecasts published by the Lehigh Valley Planning Commission in 2007. In addition a number of maps were updated to present data that has changed since 2005. No changes were made to Goals, Policies or Implementation Strategies presented in the 2005 report.

PUBLIC INPUT FOR THE COMPREHENSIVE PLAN UPDATE

PUBLIC OPINION LAND USE SURVEY

The Lehigh Valley Planning Commission (LVPC) has learned that one of the best ways to obtain useful information about citizen opinions concerning planning issues is to conduct a survey of a sizable number — 3,500 to 4,000 — of Lehigh Valley residents. This method, involving a mail-out mail-back survey, was used successfully by the Commission in 1974, 1988, and 1999. The 1999 survey was used in the creation of this plan. A 2010 update of the survey was conducted. Its results were very similar to the 1999 survey.

The 1999 Public Opinion Land Use Survey was mailed to 4,000 registered voters. This represented 1.25% of all registered voters in the Lehigh Valley. A total of 1,078 surveys were returned for processing. This resulted in a 27% return rate which is good for a lengthy survey that included 41 questions.

The opinion survey contained two types of questions: socio-economic and demographic, and attitudinal. All responses were tabulated to determine how many and what percentage of the respondents answered each question. Selected cross-tabulations were prepared. A summary of the major findings follows:

- The three most important planning issues are the preservation of farmland, the preservation of environmentally sensitive areas, and the renewal of the cities.
- Nearly 59% of the persons who answered the survey want slower growth in the Lehigh Valley. Only 2.5% want faster growth.
- The three most significant consequences of growth are felt to be: increasing traffic congestion, loss of open space, and overcrowding in schools.
- The three factors people consider most important in choosing a place to live are: good schools, low taxes, and pleasant residential areas.
- Almost 47% of the survey respondents believe the quality of life in the Lehigh Valley has gotten worse during the past 10 years. Only 17% feel it has improved.
- There is a strong mandate by registered voters to preserve farmland. Over 90% favor preserving farmland. Only 2.6% do not want to preserve farmland.
- Nearly 85% of the survey respondents think the two counties should do more to preserve farmland.
- About one half (47.6%) feel the amount of new industry and business locating in the Lehigh Valley has been about right.
- People are interested in policies and programs that will lead to the creation of higher paying jobs.
- New industrial development should occur primarily in cities.
- Nearly 87% of the survey respondents want new industrial development to occur on brown-field and other redeveloped sites.
- Most people want to see more high technology research firms in the Lehigh Valley.
- Survey respondents feel the most important transportation improvement, by far, is the upgrading of existing roadways and intersections.
- The best long-term option for Route 22 is to add more travel lanes.
- Most voters do not believe the Lehigh Valley needs a wider variety of housing types.
- About 70% of the voters who answered the survey believe more parks, recreation facilities and open space are needed.
- The most needed park and recreation facilities are felt to be large regional parks, trails for hiking and biking, and nature reserves.
- To preserve the environment, priority should be given first to protecting rivers, creeks, streams and lakes.
- Survey respondents feel most new residential development should take place in the cities and suburban townships.
- People in the Lehigh Valley are interested in new concepts such as cluster development and traditional neighborhood development.
- The feature in new residential development most important to survey respondents is the preservation of open space and environmentally sensitive areas.
- About two thirds of persons who answered the survey want new retail development to occur in the cities.

- What people like most about the Lehigh Valley are its closeness to New York City, Philadelphia and shore points, its convenience to many things, and its farmland, open spaces and rural areas.
- What people like least about the Lehigh Valley are traffic congestion, crime, and too much development and sprawl.

WORKSHOPS ON THE PLAN UPDATE

In June 2001 the Lehigh Valley Planning Commission held two workshops for the purpose of obtaining input on the updates to the regional comprehensive plan and the transportation plan. One workshop was held at the Northampton Community College in Bethlehem Township on June 19. The other workshop was held at the Lehigh County Government Center in Allentown on June 21. Seventy-six persons attended the two workshops.

Both workshops started with an open house where displays covering different planning matters could be viewed. This was followed by presentations by the LVPC Chair and Executive Director. The audience then split into four breakout groups. Each group was to cover a specific topic. The four topics included: (1) natural resource protection and farmland preservation, (2) future development patterns, (3) economic development and city revitalization, and (4) transportation. This was followed by a wrap-up session where someone from each group reported on the group's discussion and conclusions. A summary of the major conclusions reached at the four sessions follows.

- Sprawl is a big problem in the Lehigh Valley.
- More should be done to preserve farmland.
- Important natural areas need preserving.
- Our rivers and streams are important assets and need protecting.
- The lowering of the water table is a problem.
- It is important to link land use decisions and transportation planning.
- Our cities and boroughs must be revitalized.
- More development should take place on brownfield sites.
- There is a need for a stronger county role in land use decisions.
- There is too little authority for effective regional planning.

CONSULTATION WITH SCHOOL DISTRICTS AND OTHER AGENCIES

The LVPC recognizes the important role of the school districts, municipal authorities, and public utilities in the future of the Lehigh Valley. Accordingly, the LVPC sought the input of these entities. In January 2001, the LVPC requested their input. Letters were sent to all 17 school districts serving Lehigh and Northampton counties, all 44 municipal authorities created by municipalities in the two counties, and 14 public utilities that serve customers within the two counties. Additionally, the LVPC coordinated with the State by notifying the Center for Local Government Services. This initiative was consistent with the provisions of Section 306 of the Pennsylvania Municipalities Planning Code.

The letters solicited input in three areas. The entities were asked to share forecasts and projections that they had prepared. The entities were asked to identify major planned capital improvements and changes in facilities. Lastly, the entities were given the opportunity to provide their thoughts regarding the comprehensive plan update. There were six responses to our survey.

Five provided information about planned capital improvements or changes in facilities. One provided population projections. None of the respondents offered any ideas or recommendations regarding the comprehensive plan update.

AD HOC COMMITTEE ON AGRICULTURAL PRESERVATION

In 1998 the Lehigh Valley Planning Commission created an ad hoc committee to study farmland preservation. The 10-member committee was made up of farmers, farmland preservation professionals, Agricultural Extension Service county agents and others involved in agriculture. The committee met during 1998 and 1999.

The committee decided open space preservation and scenic values topped the reasons for saving farmland. The preservation of the farm economy was second. Other reasons for preserving farmland included the preservation of soil as a natural resource, environmental benefits, being part of a growth management strategy to control sprawl, and support for the food production industry.

Strategies for the better implementation of farmland preservation were a main focus of the committee. The committee's thoughts are summarized as follows:

- Advocacy of farmland preservation is a priority. More effective means of advocacy need to be undertaken.
- Continuing the preferential assessment programs is favored.
- The purchase of development rights program is desirable. Funding should be increased. Factors to be used in deciding which properties should be purchased should include soil quality, creating clusters of preserved farms and consistency with the county comprehensive plan.
- Private land trusts should continue to assist in farmland preservation. Both counties should maintain a working relationship with the Wildlands Conservancy.
- The maintenance of and the expansion of agricultural security areas should be encouraged.
- Growth management strategies should be coordinated with farmland preservation efforts.
- The agricultural community is divided in its opinion on the use of effective agricultural zoning. Some favor it. Others oppose it.
- Little or no interest was expressed for the use of the transfer of development rights technique, right of first refusal agreements, purchase and resale programs or county condemnation of key farmland.

In addition to creating the Ad Hoc Committee on Agricultural Preservation, the LVPC staff sought municipal reaction to the proposed changes to the farmland preservation section of the comprehensive plan. Copies of background information, proposed text changes and proposed map changes were sent to nearly every township. We invited feedback and, as a result, received correspondence from the townships of Allen, Lynn, North Whitehall, Upper Macungie and Upper Milford. Additionally, LVPC staff met with elected officials and planning commissioners from North Whitehall and Washington (Lehigh County) to discuss farmland preservation issues. Input from

these groups and the responses we received from the public opinion land use survey were used to update the agricultural preservation section of the comprehensive plan.

AD HOC COMMITTEE ON URBAN ISSUES

The Lehigh Valley has a number of mature communities that are largely developed. Planning issues in these communities differ in key aspects from those for communities that are still growing. The Lehigh Valley's mature communities include the three cities and 27 boroughs. Several townships share characteristics of these mature communities and will increasingly face the same issues. Many mature communities are characterized by a stable or declining tax base, the loss of population, an older building stock, a need for more services and higher poverty rates.

In 2001, the LVPC convened a special committee to focus on how the *Comprehensive Plan The Lehigh Valley ... 2030 Lehigh and Northampton Counties* could address the particular needs of mature communities. The committee was composed of 11 individuals representing cities, boroughs, and the township of Whitehall.

In April 2002 the LVPC staff prepared a memo on mature communities that is based on information learned at the committee meetings. The memo recommends the plan update include three specific goals that deal with mature communities. These goals include:

- To achieve a high quality built environment.
- To obtain adequate revenue for providing appropriate governmental services by strengthening the employment and tax revenue bases of mature communities.
- To reinforce and enhance the roles of the mature communities as the centers of regional activities.

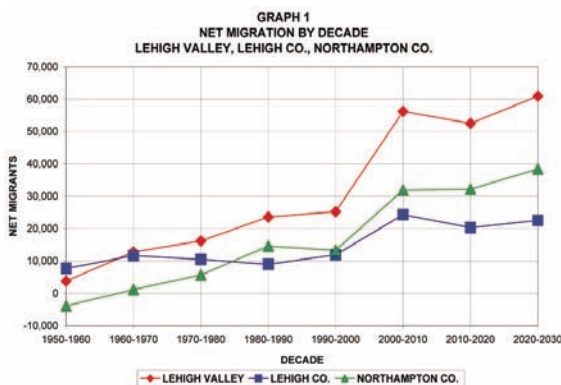
Each of the goals have been included, as appropriate, in other sections of the comprehensive plan. Each goal is followed by a list of policies and implementation strategies applicable to that goal.

GROWTH TRENDS AND FORECASTS

This section documents LVPC forecasts of future growth in the Lehigh Valley. Any forecast of future growth is somewhat speculative. There can be no guarantees that the Lehigh Valley and its parts will grow exactly as indicated here even though the LVPC has used a demographic model that accounts for future migration, births and deaths at the county level and data on local development, land resources, and available infrastructure for the municipal forecasts. The forecasts presented here are not recommendations for future growth by the LVPC. If these forecasts come about, they will present both problems and opportunities. Succeeding sections of the plan outline how to resolve some of the problems and capitalize on some of the opportunities. The forecasts found in our plan adopted in 2005 have been updated to show new forecasts released by the Lehigh Valley Planning Commission in 2007. The new forecast more accurately account for robust immigration to the Lehigh Valley during the 2000 to 2008 period.

REGIONAL POPULATION GROWTH

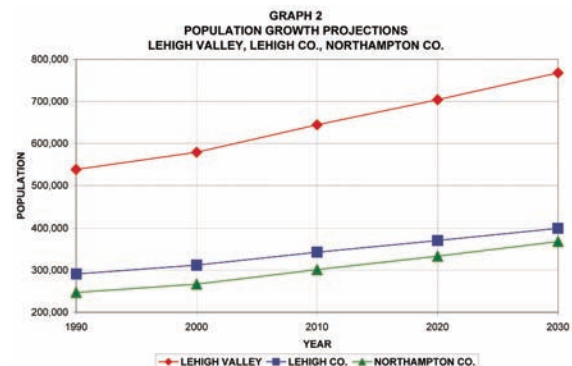
Future population growth in the Lehigh Valley will depend on migration. Based upon past experience, most of this growth will come from westward expansion of metropolitan areas in New Jersey and New York (see Map 1). The Philadelphia area is a secondary source of immigration. Graph 1 shows net migration (people moving in minus people moving out) to the Lehigh Valley since the 1950s and a forecast of the future trend.



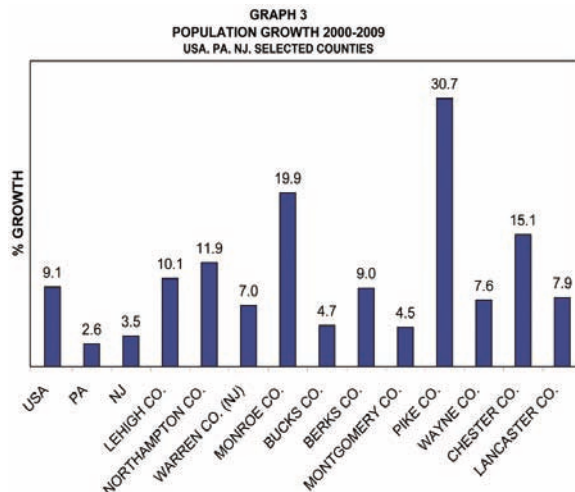
Between 2000 and 2030 migration is expected to account for an increase of 169,625 people in the Lehigh Valley. Forty percent (67,142) are forecast to locate in Lehigh County and 60% (102,483) in Northampton County.

Unless there are unexpected increases in family size, natural increase in population is not expected to account for much future population growth. Without migration, population would eventually decline.

Graph 2 shows the official LVPC forecast of future population growth for Lehigh County, Northampton County and the Lehigh Valley as a whole. If past trends in migration, births and deaths continue, the Lehigh Valley will grow by 33% between 2000 and 2030. The population of the Lehigh Valley will grow from 579,156 in 2000 to 767,856 in 2030. Northampton County is expected to grow 38% compared with 28% in Lehigh County.

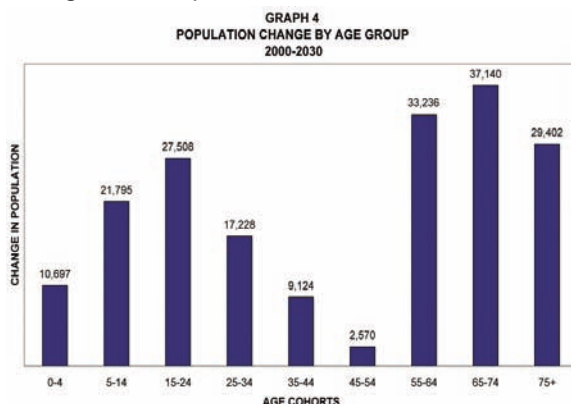


Graph 3 shows population growth in Lehigh and Northampton counties (Lehigh Valley) from 2000 to 2009 in relationship to the USA, Pennsylvania, and other nearby counties. Lehigh and Northampton grew faster than Pennsylvania, New Jersey, and the U.S.A. Many Pennsylvania counties have experienced negative growth or no growth. However, this is not the case in southeastern Pennsylvania and in counties bordering the Delaware River. In the cases of Monroe and Pike counties growth due to migration from New Jersey and New York has been extraordinary. Growth in the Lehigh Valley is a function of its location relative to New York, New Jersey and Philadelphia more than any other factors.



POPULATION CHARACTERISTICS

Between 2000 and 2030 there will be important changes in the population of age groups. Graph 4 shows those age groups that will grow, decline and remain static through the thirty year period. As illustrated there is dramatic growth in people over 65, relatively little change in the number of people 35 to 54 and modest growth in people under 35. The population over 65 will grow by about 73% during this time period.



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

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

MUNICIPAL POPULATION GROWTH

Table 1 shows the top five municipalities in each county by their numeric population growth from 2000 to 2008.

**TABLE 1
HIGHEST MUNICIPAL POPULATION GROWTH
Lehigh Valley Municipalities: 2000-2008**

		2000	2008	Numeric Change
Lehigh County				
1	Lower Macungie Twp.	19,220	29,680	10,460
2	Upper Macungie Twp.	13,895	18,224	4,329
3	Upper Saucon Twp.	11,939	14,830	2,891
4	Whitehall Twp.	24,896	26,832	1,936
5	North Whitehall Twp.	14,731	16,275	1,544
Northampton County				
1	Forks Township	8,419	14,340	5,921
2	Palmer Twp.	16,809	20,315	3,506
3	Bethlehem Twp.	21,171	23,566	2,395
4	Allen Twp.	2,630	4,524	1,894
5	Upper Mt. Bethel Twp.	6,063	7,727	1,664

Table 2 shows the LVPC forecast of municipal population growth between 2000 and 2030. The top five population growth municipalities in Lehigh County are expected to be Lower Macungie, Upper Macungie, North Whitehall, Upper Saucon and South Whitehall. Population growth pressures are also expected to extend to several of the rural townships such as Washington, Weisenberg, Lynn and Lower Milford.

In Northampton County the top five growth municipalities are expected to be Bethlehem Township, Forks Township, Palmer Township, Lower Nazareth Township and Upper Nazareth Township. However, rural townships will experience growing development and growth pressure in the next thirty years. In general development patterns in Northampton County are much more dispersed than in Lehigh County. The potential for urban sprawl is substantial. With increasing migration from New Jersey many rural townships in Northampton will be faced with increasing growth problems. Early action to

**TABLE 2
OFFICIAL LVPC POPULATION FORECASTS**

Municipality	1900 Census	2000 Census	2010 Forecast	2020 Forecast	2030 Forecast	Change 2000-2030
Lower Macungie Twp.	2,920	19,220	28,020	33,424	42,193	22,973
Upper Macungie Twp.	2,081	13,895	19,859	26,479	33,508	19,613
North Whitehall Twp.	3,280	14,731	18,182	22,253	23,949	9,218
Upper Saucon Twp.	2,271	11,939	14,848	17,091	17,960	6,021
South Whitehall Twp.	2,472	18,028	19,817	21,619	23,573	5,545
Lynn Twp.	2,366	3,849	4,906	6,326	8,207	4,358
Weisenberg Twp.	1,366	4,144	5,246	6,363	7,631	3,487
Whitehall Twp.	7,935	24,896	26,305	27,201	28,218	3,322
Washington Twp.	3,096	6,588	7,520	8,682	9,498	2,910
Lower Milford Twp.	1,233	3,617	4,094	4,852	5,907	2,290
Lowhill Twp.	715	1,869	2,462	3,188	4,100	2,231
Allentown	35,416	106,632	107,110	107,469	108,230	1,598
Upper Milford Twp.	2,712	6,889	7,504	7,804	7,974	1,085
Heidelberg Twp.	1,411	3,279	3,612	3,995	4,356	1,077
Bethlehem (part)		19,029	19,430	19,596	19,939	910
Salisbury Twp.	4,582	13,498	13,895	14,094	14,119	621
Alburtis		2,117	2,243	2,329	2,479	362
Macungie	692	3,039	3,111	3,111	3,111	72
Emmaus	1,468	11,313	11,351	11,351	11,351	38
Hanover Twp.	3,324	1,913	1,915	1,915	1,915	2
Coopersburg	556	2,582	2,570	2,570	2,570	-12
Coplay	1,581	3,387	3,371	3,371	3,371	-16
Fountain Hill	1,214	4,614	4,595	4,595	4,595	-19
Slatington	3,773	4,434	4,413	4,413	4,413	-21
Catasauqua	3,963	6,588	6,553	6,553	6,553	-35
LEHIGH COUNTY	93,893	312,090	342,932	370,644	399,721	87,631
Bethlehem Twp.	3,090	21,171	25,193	28,979	33,566	12,395
Forks Twp.	1,147	8,419	13,973	16,522	19,962	11,543
Palmer Twp.	2,051	16,809	19,554	22,289	26,899	10,090
Lower Nazareth Twp.	1,034	5,259	7,085	10,222	12,380	7,121
Upper Nazareth Twp.	731	4,426	6,309	8,921	11,197	6,771
Lehigh Twp.	3,769	9,728	11,707	14,238	16,369	6,641
Allen Twp.	6,541	2,630	4,473	6,387	8,586	5,956
Plainfield Twp.	2,042	5,668	6,855	8,694	10,752	5,084
Moore Twp.	2,293	8,673	10,132	11,888	13,698	5,025
Upper Mt. Bethel Twp.	2,446	6,063	7,763	9,180	10,845	4,782
Bushkill Twp.	1,586	6,982	8,562	9,997	11,109	4,127
Washington Twp.	2,614	4,152	5,347	6,755	8,027	3,875
Lower Saucon Twp.	4,141	9,884	11,549	12,658	13,722	3,838
Williams Twp.	1,819	4,470	6,178	7,372	8,262	3,792
Hanover Twp.	401	9,563	10,560	11,472	12,954	3,391
East Allen Twp.	1,137	4,903	5,292	5,942	6,491	1,588
Bethlehem (part)		52,300	53,436	53,372	53,301	1,001
Lower Mt. Bethel Twp.	1,335	3,228	3,426	3,683	3,988	760
Bath	731	2,678	2,844	3,035	3,425	747
Nazareth	2,304	6,023	6,103	6,304	6,697	674
Bangor	4,106	5,319	5,350	5,458	5,655	336
Northampton		9,405	9,699	9,699	9,699	294
Pen Argyl	2,784	3,615	3,681	3,738	3,857	242
Portland	490	579	633	747	772	193
Easton	25,238	26,263	26,279	26,323	26,405	142
East Bangor	983	979	1,034	1,105	1,114	135
Tatamy	260	930	1,044	1,044	1,044	114
Walnutport		2,043	2,136	2,136	2,136	93
Freemansburg	596	1,897	1,973	1,973	1,973	76
Wilson		7,682	7,753	7,753	7,753	71
Stockertown		687	756	756	756	69
North Catasauqua		2,814	2,863	2,863	2,863	49
West Easton	1,000	1,152	1,170	1,170	1,170	18
Wind Gap	711	2,812	2,827	2,827	2,827	15
Hellertown	745	5,606	5,615	5,615	5,615	9
Roseto		1,653	1,662	1,662	1,662	9
Glendon	704	367	368	368	369	2
Chapman	319	234	234	234	234	0
Bethlehem (Total L & N)	23,625	71,329	72,867	75,625	73,240	1,911
NORTHAMPTON CO TOTAL	99,687	267,066	301,416	333,382	368,135	101,069
REGIONAL TOTAL	193,580	579,156	644,348	704,026	767,856	188,700

Source: Lehigh Valley Planning Commission based on new forecasts published in 2007.

mitigate threats to the natural environment and to manage traffic is needed. In order to cope with future growth pressures, municipalities will need to do better planning and implementation of plans than they have done in the past.

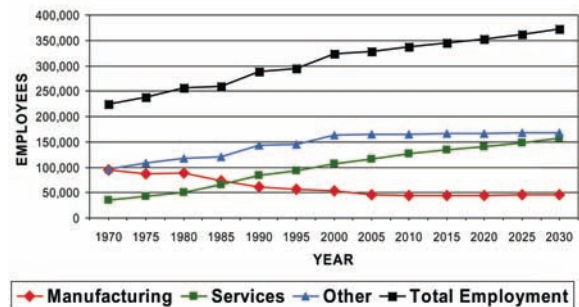
Economic, cultural and geographic forces that shape growth at the statewide and regional levels are difficult to stimulate if more growth is desired and equally difficult to manage if less growth is desired. Although states and regions have limited capacity to control growth, the authority of local municipalities is considerable. Communities can shape the location of growth and influence the timing and amount of growth. They do this through zoning regulations, sewer and water extensions, road improvements and resource protection policies. To the extent that counties opt to participate in any of these activities, they can also participate in growth management, though at a much lesser level than municipalities. In particular, counties can influence major sewer, water and highway projects that affect growth.

EMPLOYMENT GROWTH

Between 2000 and 2030, the LVPC forecasts a 15% increase in jobs in the Lehigh Valley. If trends over the last 20 years continue, most of these jobs will be in services. Manufacturing industries are likely to bottom out around current levels. Graph 6 illustrates these employment forecasts. The shift from manufacturing to services in the Lehigh Valley echoes national trends. The shift is occurring somewhat more rapidly in the Lehigh Valley because the area has historically had a more dominant manufacturing base than the nation. During the 1980s, 1990s and early 2000s major job losses occurred at Bethlehem Steel, Mack Truck, Agere and other manufacturing concerns. Job increases came from insurance back offices, warehousing, health care, education and personal services.

Changes in the regional economic base have affected all facets of life in the Lehigh Valley. Overall income levels have shown slow growth as high paying manufacturing jobs gave way to lower paying jobs in services and trade. Occupational requirements and training needs changed as the predominant blue-collar work force of previous decades changed to a white-collar labor force dominated by administrative and clerical personnel. Old industrial plants located in the cities shut

**GRAPH 6
EMPLOYMENT TRENDS LEHIGH VALLEY
1970-2030**



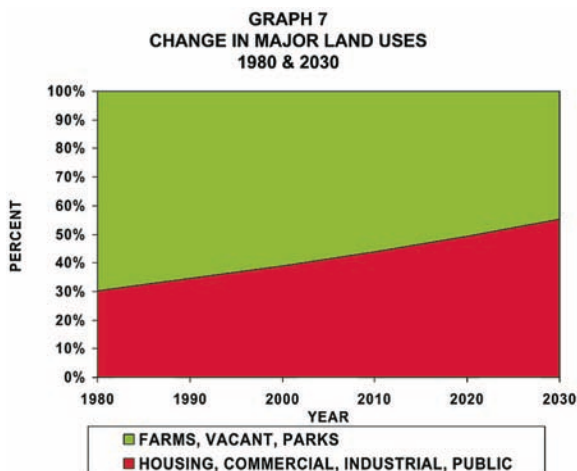
down all or part of their operations as new office structures were built in suburban locations. Land uses, travel patterns and infrastructure needs shifted accordingly. In the cities and some of the other older urban areas, problems of rehabilitating old sites for new development are major issues. In many of the new developed areas, problems of dealing with traffic congestion and provision of adequate sewer and water facilities have surfaced. Balancing the need for sound economic growth with environmental protection and provision of adequate facilities and services is a major challenge confronting all municipalities in the future.

LAND USE

As part of the update to this comprehensive plan the Lehigh Valley Planning Commission did extensive analysis of land use trends in the Lehigh Valley using the Geographic Information System (GIS), county aerial photographs flown in both counties in 2000, and county tax records. The purposes of the analysis were: (1) identify land use patterns and classifications by land use category; (2) compute land use changes during the 1990s and land consumption trends; (3) determine suitability of land for different uses; (4) analyze vacant land parcels and the potential for infill development. This information supplements tax assessment office records on land use change that LVPC has maintained since the 1970s. Following are major findings of this analysis:

a) Tax assessment data over the past 30 years indicates that agricultural and vacant land in the Lehigh Valley is being developed for housing, business and industry at an average rate of about 3.0 square miles per year. There is evidence that this rate has been increasing in each decade since the 1970s. GIS measurements from 1992 and

2000 aerial photographs show land consumption at 3.5 square miles per year in the Lehigh Valley. Graph 7 shows the changing percentages of land in housing, commercial and industrial uses versus the amount of land in agriculture, vacant and parks over the period extending from 1980 to 2030. It is projected that land consumption will exceed 4 square miles per year by 2030. By 2030 about 55% of the land will be in housing, commercial and industrial.



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

c) From 1975 to 2001 about 76% of the land developed in Lehigh County and 80% of land developed in Northampton County was developed for residential purposes. Persons looking for the main element in suburban sprawl need look no further. The key to controlling sprawl is more people living

in higher density residential development in areas served with public sewer, public water, nearby transportation and other urban services. Consumer tastes for rural development create urban sprawl. Rural development carves large expanses of open space into small pieces.

d) Nearly all new industrial and business development in the Lehigh Valley is on “greenfield sites”. These are usually former farms converted to industrial sites. In 2002 12,922 acres of land was zoned for industry in Lehigh and Northampton counties. Of this total 4,466 (35%) are considered prime greenfield sites; i.e. sites with minimal environmental problems, available sewer and water and highway access. Lehigh County has 1,858 acres out of the 4,466 and Northampton County has 2,607.4. Much of the best industrial land is located in Upper Macungie, Lower Macungie and Upper Saucon townships in Lehigh County. In Northampton County the best greenfield sites are along the Route 33 corridor in Bethlehem Township, Lower Nazareth and Palmer. Each county will face a variety of problems concerning industrial site development in the future. In Lehigh County many of the best sites have already been developed. In Northampton County many of the zoned sites lack adequate sewer and water.

e) In addition to greenfield acreage listed above, the Lehigh Valley Economic Development Corporation reports there are 2,079 available acres of potential redevelopment property in the Lehigh Valley. Sixteen hundred of these acres are the Bethlehem Steel properties on the southside of Bethlehem. Redevelopment of these properties is an important land use and economic development issue. Plans are now underway to sell much of the Bethlehem Steel property to private developers. If successfully developed, sites of this type can become community assets. Industrial redevelopment adds to the supply of industrial space and reduces some of the development pressure on open space.