

DATA COMPANION TO THE SOUTHWESTERN LEHIGH COUNTY COMPREHENSIVE PLAN

and the state

TABLE OF CONTENTS

REGIONAL PROFILE PG 3

FUTURE LAND USE PLAN METHODOLOGY PG 34

> SURVEY RESULTS PG 40



REGIONAL PROFILE

Before developing any proposals to guide future municipal decision making, it is essential to first have a clear understanding of the community being planned for. This regional profile of Southwestern Lehigh County provides data and research findings that can help in identifying key considerations, setting clear priorities and informing subsequent policy decisions. A glossary providing definitions and thresholds for Land Uses of Regional Significance has also been included at the end of this profile. The Lehigh Valley Planning Commission has examined regional conditions related to the following fourteen factors:

- Population
- Age
- Race and Ethnicity
- Households
- Homeownership
- Vacancy
- Income
- Housing Costs
- Poverty
- Education
- Employment
- Existing Land Use
- Development Activity
- Sales Activity

POPULATION

From 2000 to 2010, Lower Macungie Township was the fastest growing of Southwestern Lehigh County's six municipalities. From 2010 to 2040, the boroughs are expected to grow at a slower pace than the townships.

Municipality	2000	2010	2020	2030	2040
Alburtis	2,117	2,361	2,588	2,848	3,132
Emmaus	11,313	11,211	11,607	12,088	12,676
Lower Macungie Township	19,220	30,633	33,749	37,011	40,596
Lower Milford Township	3,617	3,775	4,252	4,541	4,859
Macungie	3,039	3,074	3,210	3,364	3,537
Upper Milford Township	6,889	7,292	8,382	9,012	9,642
Southwestern Lehigh County	46,195	58,346	63,788	68,864	74,442
Lehigh County	312,090	349,497	385,710	427,162	469,975

Source: U.S. Census Bureau, Decennial Census 2000, 2010; LVPC Projections 2020, 2030, 2040

AGE

Within the region, five of the six municipalities have median ages above the median age of Lehigh County (39.4 years). Only Alburtis borough has a significantly younger median age (34.7). Both Upper and Lower Milford Townships have median ages more than five years above the county median.

Municipality	Total Population	Ages 0-9	Ages 10-17	Ages 18-24	Ages 25-44	Ages 45-64	Ages 65+
Alburtis	2,361	14%	13%	8%	32%	26%	7%
Emmaus	11,211	11%	10%	8%	28%	27%	16%
Lower Macungie	30,633	14%	12%	5%	26%	28%	16%
Lower Milford	3,775	11%	12%	7%	20%	36%	14%
Macungie	3,074	10%	8%	9%	28%	28%	16%

Municipality	Total Population	Ages 0-9	Ages 10-17	Ages 18-24	Ages 25-44	Ages 45-64	Ages 65+
Upper Milford	7,292	10%	10%	7%	21%	37%	16%
Southwestern Lehigh County	58,346	13%	11%	6%	26%	29%	16%
Lehigh County	349,497	13%	11%	9%	25%	27%	15%

RACE AND ETHNICITY

Within Southwestern Lehigh County, Lower Macungie Township is the most diverse municipality. The share of the population identifying as Asian alone is particularly high —5.9% in Lower Macungie Township compared to 3.8% in the region and 2.9% in the county as a whole.

Municipality	Total Population	White Alone	Hispanic (Any Race)	Black Alone	Asian Alone	Other Alone*	Two or More Races
Alburtis	2,361	90.10%	5.50%	1.80%	1.30%	0.00%	1.20%
Emmaus	11,211	91.20%	4.70%	1.30%	1.50%	0.20%	1.20%
Lower Macungie	30,633	84.60%	5.00%	3.00%	5.90%	0.30%	1.10%
Lower Milford	3,775	96.10%	1.40%	0.30%	0.90%	0.30%	1.00%
Macungie	3,074	89.70%	5.20%	1.50%	1.80%	0.30%	1.50%
Upper Milford	7,292	95.10%	2.30%	0.30%	1.20%	0.20%	0.80%
Southwestern Lehigh County	58,346	88.40%	4.40%	2.00%	3.80%	0.30%	1.10%
Lehigh County	349,497	71.60%	18.80%	4.90%	2.90%	0.30%	1.50%

*Includes Native Hawaiian and Other Pacific Islander Alone, American Indian and Alaska Native Alone, and Some Other Race AloneSource: U.S. Census Bureau, 2010 Census

HOUSEHOLDS

Within Southwestern Lehigh County, married couple families are most concentrated in the townships. The only borough that approaches the concentration of married couple family households seen in the townships is Alburtis Borough.

Municipality	Total Households	Family, Married Couple	Family, other	Family, all	Non-Family
Alburtis	2,117	2,361	2,588	2,848	3,132
Emmaus	11,313	11,211	11,607	12,088	12,676
Lower Macungie Township	19,220	30,633	33,749	37,011	40,596
Lower Milford Township	3,617	3,775	4,252	4,541	4,859
Macungie	3,039	3,074	3,210	3,364	3,537
Upper Milford Township	6,889	7,292	8,382	9,012	9,642
Southwestern Lehigh County	46,195	58,346	63,788	68,864	74,442
Lehigh County	312,090	349,497	385,710	427,162	469,975

Source: U.S. CensusBureau, Decennial Census 2010

The character of households within Southwestern Lehigh County appears to be changing, however. Four municipalities added both family and non-family households between 2000 and 2010 — the three townships and Alburtis Borough. While most of the added households were family households, the share of married couple households was less than 40% of all added households for Alburtis Borough, Lower Milford Township, and Upper Milford Township, and only 60% of all added households for Lower Macungie Township. These four municipalities may see their share of family households remain high, but their share of married couple family households begin

Municipality	Total Households	Family, Married Couple	Family, other	Family, all	Non-Family
Alburtis	107	39%	23%	63%	37%
Lower Macungie Township	4,336	60%	12%	72%	28%
Lower Milford Township	87	37%	26%	63%	37%
Upper Milford Township	279	35%	26%	61%	39%
Southwestern Lehigh County	4,782	51%	18%	69%	31%
Lehigh County	12,077	16%	51%	67%	33%

Source: U.S. Census Bureau, Decennial Census 2000, 2010

HOMEOWNERSHIP

Within Southwestern Lehigh County, homeownership is highest in the townships. Rates of homeownership in Lower Macungie Township, Upper Milford Township, and Lower Milford Township all exceeded 88% in 2010. Among the boroughs, only Alburtis Borough approaches the rates of homeownership seen in the townships.

Municipality	Total Occupied Units	Owner Occupied	Renter Occupied
Alburtis	881	83%	17%
Emmaus	4,931	63%	37%
Lower Macungie Township	11,494	88%	12%
Lower Milford Township	1,364	91%	9%
Macungie	1,393	58%	42%
Upper Milford Township	2,793	91%	9%
Southwestern Lehigh County	22,856	81%	19%
Lehigh County	133,983	68%	32%

Source: U.S. Census Bureau, 2010 Census

VACANCY

Within Southwestern Lehigh County, only Macungie Borough had a 2010 vacancy rate greater than the county rate. Several of the municipalities experienced greater increases in vacancy rates than the county, however. Macungie Borough's vacancy rate increased by 3.0% to 6.7%, and Upper Milford Township's vacancy increased by 2.3% to 4.7%. While all Southwestern Lehigh County municipalities had vacancy rates below 4.0% in 2000, only Alburtisboroughand the townships of Lower Macungie and Lower Milford had vacancy rates that remained below 4.0% by 2010.

Municipality	2000 Vacancy Rate	2010 Vacancy Rate
Alburtis	3.10%	3.20%
Emmaus	3.90%	5.00%
Lower Macungie Township	3.30%	3.50%
Lower Milford Township	2.40%	3.70%
Macungie	3.70%	6.70%

Municipality	2000 Vacancy Rate	2010 Vacancy Rate
Upper Milford Township	2.40%	4.70%
Southwestern Lehigh County	3.30%	4.20%
Lehigh County	5.40%	6.10%

INCOME

From 2000 to 2010, inflation-adjusted median household income declined across Lehigh County. Within Southwestern Lehigh County, inflation-adjusted median household income decreased by more than \$10,000 in four of the six municipalities, and increased only in the boroughs of Alburtis and Emmaus. Nevertheless, median household incomes remained higher in all Southwestern Lehigh County municipalities than in the county as a whole. The two municipalities with the highest household income—Lower Macungie Township and Lower Milford Township—also had the highest median family incomes.

Municipality	2000 Median Household Income, \$	2010 Median Household Income, \$	Change in Median Household Income, \$
Alburtis	68,517	69,667	1,150
Emmaus	57,813	61,214	3,401
Lower Macungie Township	91,064	80,344	-10,720
Lower Milford Township	87,683	70,904	-16,779
Macungie	67,679	56,387	-11,292
Upper Milford Township	87,272	65,589	-21,683
Lehigh County	56,855	53,541	-3,314

Source: U.S. Census Bureau, 2010 Census

HOUSING COSTS

A general rule of thumb is that households should try to devote no more than 30% of their gross income to housing costs (including rent or mortgage, utilities, insurance, and real estate taxes) so that sufficient resources are available for other needs. The municipalities within Southwestern Lehigh County show a wide range of spending on housing costs.

HOUSING COSTS, OWNERS WITH MORTGAGE

Municipality	All housing units with a mortgage	0-30% of Income	> 30% of Income
Alburtis Borough	572	71%	29%
Emmaus Borough	2,077	67%	33%
Lower Macungie Township	6,772	70%	30%
Lower Milford Township	811	57%	43%
Macungie Borough	612	79%	21%
Upper Milford Township	1,399	70%	30%
Southwestern Lehigh County	12,243	69%	31%
Lehigh County	60,320	64%	36%

HOUSING COSTS, OWNERS WITHOUT MORTGAGE

Municipality	All housing units without a mortgage	0-30% of Income	> 30% of Income
Alburtis Borough	153	90%	10%
Emmaus Borough	1,003	90%	10%
Lower Macungie Township	3,501	80%	20%
Lower Milford Township	491	77%	23%
Macungie Borough	181	71%	29%
Upper Milford Township	774	87%	13%
Southwestern Lehigh County	6,103	82%	18%
Lehigh County	29,225	83%	17%

Source: U.S. Census Bureau, 2009-2013 (5-Year) American Community Survey

HOUSING COSTS, RENTERS

Municipality	All occupied units paying rent	0-30% of Income	> 30% of Income
Alburtis Borough	128	49%	51%
Emmaus Borough	1,695	53%	47%
Lower Macungie Township	1,121	54%	46%
Lower Milford Township	39	100%	0%
Macungie Borough	607	50%	50%
Upper Milford Township	392	63%	37%
Southwestern Lehigh County	3,982	54%	46%
Lehigh County	41,079	45%	55%

Source: U.S. Census Bureau, 2009-2013 (5-Year) American Community Survey

POVERTY

Though poverty rose from 2000 to 2010, most Southwestern Lehigh County municipalities continue to experience poverty rates that are significantly lower than the county poverty rate. Emmaus Borough and Lower Milford Township were the only municipalities to experience a decline in poverty rates between 2000 and 2010, and had the lowest rates by 2010. Upper Milford Township had the highest poverty rate in 2010, with 6.9% of residents living below the poverty level.

Municipality	2000 % of Persons Below Poverty Level	2010 % of Persons Below Poverty Level	Change in % of Persons Below Poverty Level
Alburtis	3.40%	6.60%	3.20%
Emmaus	3.50%	2.80%	-0.70%
Lower Macungie Township	2.30%	4.50%	2.20%
Lower Milford Township	2.80%	2.60%	-0.20%
Macungie	3.50%	4.60%	1.10%
Upper Milford Township	1.30%	6.90%	5.60%
Lehigh County	9.30%	11.90%	2.60%

Source: U.S. Census Bureau, Decennial Census 2000 and 2006-2010 (5-Year) American Community Survey

EDUCATION

Within Southwestern Lehigh County, four of the six municipalities experienced gains in the share of adults with at least a college education between 2000 and 2010. Conversely, the share of college-educated adults decreased in Upper Milford Township and Macungie Borough, with both municipalities falling below the Lehigh County rate in 2010.

BACHELOR'S DEGREE OR HIGHER, POPULATION 25 YEARS AND OVER

Municipality	2000 % of College or more	2010 % of College or more	Change in % of College or more
Alburtis	19.30%	25.10%	5.80%
Emmaus	24.60%	30.50%	5.90%
Lower Macungie Township	42.70%	47.90%	5.20%
Lower Milford Township	30.60%	30.80%	0.20%
Macungie	28.90%	25.20%	-3.70%
Upper Milford Township	30.00%	25.20%	-4.70%
Southwestern Lehigh County	33.40%	38.20%	4.70%
Lehigh County	23.30%	27.00%	3.70%

Source: U.S. Census Bureau, Decennial Census 2000 and 2006-2010 (5-Year) American Community Survey

All six municipalities experienced a decline in the share of adults with less than a high school diploma between 2000-2010. These declines were particularly steep in the boroughs.

Municipality	2000 % Less than High School	2010 % Less than High School	Change in % Less than High School
Alburtis	19.40%	7.50%	-11.90%
Emmaus	15.50%	10.10%	-5.40%
Lower Macungie Township	8.80%	6.40%	-2.40%
Lower Milford Township	12.10%	10.70%	-1.40%
Macungie	13.90%	7.50%	-6.40%
Upper Milford Township	11.20%	8.00%	-3.20%
Southwestern Lehigh County	11.90%	7.70%	-4.10%
Lehigh County	18.90%	14.10%	-4.70%

Source: U.S. Census Bureau, Decennial Census 2000 and 2006-2010 (5-Year) American Community Survey

EMPLOYMENT

The distribution of employment in Lehigh County generally echoes that of the state. The only exceptions are employment in manufacturing (representing a greater share of employment in Lehigh County than in the state) and public administration (representing a smaller share of employment in Lehigh Countythan in the state). Within Southwestern Lehigh County, two sectors account for a particularly large share of employment compared to the county: 1) educational services, health care and social assistance and 2) manufacturing.

2010 EMPLOYMENT, % OF RESIDENTS EMPLOYED IN EACH EMPLOYMENT SECTOR

Employment Sector	Alburtis	Emmaus	Lower Macungie	Lower Milford	Macungie	Upper Milford	Southwestern Lehigh County	Lehigh County
Educational services, and health care and social assistance	33.80%	26.90%	27.60%	24.20%	25.70%	26.00%	27.10%	25.10%
Manufacturing	14.70%	16.20%	16.10%	19.60%	13.10%	16.40%	16.20%	14.80%
Retail trade	7.40%	13.00%	10.90%	13.20%	14.10%	8.70%	11.20%	11.60%
Professional, scientific, and management	8.60%	9.80%	9.20%	9.10%	11.10%	10.50%	9.60%	10.00%
Finance and insurance, and real estate and rental and leasing	5.40%	5.80%	8.60%	2.70%	6.60%	3.80%	6.70%	6.10%
Arts, entertainment, recreation, accommodation/food services	5.90%	6.20%	5.80%	7.80%	6.00%	8.00%	6.40%	7.60%
Construction	5.40%	3.60%	3.20%	12.20%	5.40%	11.50%	5.40%	5.70%
Transportation and warehousing, and utilities	4.70%	4.60%	6.00%	1.50%	5.90%	5.60%	5.30%	5.70%
Other services, except public administration	6.00%	4.50%	3.40%	4.10%	2.50%	4.90%	3.90%	4.40%
Wholesale trade	2.10%	3.00%	4.10%	1.60%	3.60%	1.10%	3.20%	3.60%
Information	1.50%	3.60%	3.10%	1.30%	4.40%	1.70%	2.90%	2.80%
Public administration	4.40%	2.40%	1.90%	2.20%	0.60%	0.90%	1.90%	2.10%
Agriculture, forestry, fishing and hunting, and mining	0.00%	0.20%	0.20%	0.40%	0.90%	1.10%	0.40%	0.40%

Source: U.S. Census Bureau, 2006-2010 (5-Year) American Community Survey

EXISTING LAND USE

2014 ESTIMATED* LAND USE, ACRES

Municipality	Residential	Commercial	Industrial	Wholesale & Warehousing	Trans., Comm. & Utilities	Public & Quasi- Public	Parks & Recreation	Agriculture & Undeveloped
Alburtis Borough	185	6	10	0	60	16	70	110
Emmaus Borough	826	121	81	5	423	106	209	84
Lower Macungie Township	4,840	417	543	24	1,715	492	1,414	4,931
Lower Milford Township	3,166	52	5	0	712	182	95	8,408
Macungie Borough	219	23	63	0	87	29	179	33
Upper Milford Township	4,949	73	79	5	740	146	453	5,081
Southwestern Lehigh County	14,184	691	781	34	3,737	970	2,418	18,647
Lehigh County Total	67,713	4,486	7,536	1,051	18,602	6,280	20,821	114,950

Source: Lehigh County GIS Tax Assessment database and LVPC GIS database. *Based on updated land use interpretations by County Assessment offices and LVPC. Comparison across years will therefore reflect both changes in land use and changes in data interpretation.

2004 ESTIMATED LAND USE, ACRES

Municipality	Residential	Commercial	Industrial	Wholesale & Warehousing	Trans., Comm. & Utilities	Public & Quasi- Public	Parks & Recreation	Agriculture & Undeveloped
Alburtis Borough	164	10	14	0	61	14	74	153
Emmaus Borough	778	119	83	5	416	94	206	115
Lower Macungie Township	4,235	421	415	25	1,623	525	983	6,258
Lower Milford Township	3,000	70	5	0	649	182	229	8,492
Macungie Borough	214	43	69	0	87	29	209	36

Municipality	Residential	Commercial	Industrial	Wholesale & Warehousing	Trans., Comm. & Utilities	Public & Quasi- Public	Parks & Recreation	Agriculture & Undeveloped
Upper Milford Township	4,596	120	66	5	671	119	324	5,476
Southwestern Lehigh County	12,986	782	652	35	3,507	961	2,025	20,528
Lehigh County Total	54,233	4,512	4,837	3,895	19,281	5,179	18,909	112,459

Source: Lehigh County GIS Office and LVPC. 1 Rural residential lot > 10 acres, assigned 5 acres residential and the remainder to agriculture/undeveloped. 2 River features included in agriculture/undeveloped.

PLANNING AND DEVELOPMENT CONTEXT

Planning Activity

The Municipalities Planning Code requires that any proposed changes to local comprehensive plans or land use ordinances be submitted to the county planning agency for review. The county planning agency must then provide comments to the municipalities within 30 days, prior to municipal adoption. The Lehigh Valley Planning Commission (LVPC) serves as the county planning agency for Lehigh and Northampton counties. The LVPC assesses the consistency of proposed plan updates and ordinance amendments within the 62 municipalities of Lehigh and Northampton counties with *Comprehensive Plan The Lehigh Valley...2030*. Municipalities may also submit "other such ordinances and regulations governing the development of land" to the LVPC (MPC Section 209.1).

The Lehigh Valley Planning Commission analyzed the full history of planning activity within Southwestern Lehigh County between the adoption of the first multimunicipal plan in 2005 and the start of work on the multimunicipal plan update in 2014. Working with the municipalities, the LVPC assembled a complete list of comprehensive plan updates, ordinance amendments, and other land use planning policy documents submitted to the Commission from 2005 to 2014. For each of these submissions, the LVPC noted the type of planning activity and assessed the consistency of the activity with both the county comprehensive plan and the initial multimunicipal plan. A complete list of submissions is provided below:

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Alburtis Borough		Proposed Rezoning L-1 to R3,Proposed Zoning Amendments, Proposed SALDO Amendments pertaining to twins	7/1/05	Not adopted
Alburtis Borough	437	SALDO Amendment - Revising procedures for processing and acting on applications	8/26/05	9/14/05
Alburtis Borough	437	Zoning Ordinance Amendment Residential dwelling in the commercial zone as a conditional use	8/26/05	9/14/05
Alburtis Borough	446	Proposed Rezoning L-1 to R3,Proposed Zoning Amendments, Proposed SALDO Amendments pertaining to twins(Revised 2005)	3/31/06	6/28/06

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Alburtis Borough	449	Proposed Zoning Ordinance Amendments: various (residential conversions, outdoor raw storage, vehicle storage, parking)	9/29/06	11/8/06
Alburtis Borough	465	Zoning Ordinance Amendment L-1 Dimensional Requirements, Deferral of landscape buffer requirements	12/21/07	12/26/07
Alburtis Borough	474	Proposed Zoning Ordinance Amendments - Definitions, kennels, buffers et al.	8/1/08	8/13/08
Alburtis Borough	481	Zoning Ordinance Amendment - Parking, Fence and Accessory building regulations	5/1/09	5/13/09
Alburtis Borough	488	Proposed Zoning Ordinance Amendments - Two Family Dwellings, Proposed Rezoning - LI to C1 West Penn Avenue	2/26/10	3/31/10
Alburtis Borough	516	Zoning Ordinance Amendment - Fair Housing	12/20/13	1/6/14
Alburtis Borough	519	Zoning Ordinance Amendment - Commercial Communication Tower and Antenna	2/28/14	3/12/14
Emmaus Borough	994	Zoning Amendment: to Permit Antennas and Accessory Equipment for High-Speed Internet Service	4/28/05	6/1/05
Emmaus Borough	998	Amending the Zoning Map to Rezone a Property Located at 300 Furnace Street from I-L (Light Industrial) and C-R (Conservation Residential) to R-M (Medium Density Residential)	7/1/05	Not adopted
Emmaus Borough	998	Amending the Zoning Map to Rezone a Property Located at 300 Furnace Street from I-L (Light Industrial) and C-R (Conservation Residential) to R-M (Medium Density Residential)	8/26/05	9/1/05
Emmaus Borough	1009	For Certain Amendments to the Borough of Emmaus Zoning Ordinance, and Repealing all Ordinances or Sections Inconsistent Therewith	9/29/06	12/6/06
Emmaus Borough		Parks, recreation and open space plan (SW Lehigh - Emmaus, L Milford, Macungie, U Milford)	10/23/08	unknown
Emmaus Borough	1062	Zoning: Amending Chapter 27, Section 704; to Include a Definition of Commercial Advertising Signs	8/17/15	1/4/10
Emmaus Borough	1073	SALDO: Amending Chapter 23, to Amend Section 806.3.A Dealing with Non-Conforming Structures	8/17/15	10/4/10
Emmaus Borough	1080	Zoning: Amending Chapter 27, Section 807(5) of the Zoning Ordinance, Dealing with Temporary Uses by Special Exception	8/26/11	9/19/11
Emmaus Borough	1083	Amending Chapter 27, Section 202 of the Zoning Ordinance, Providing a Definition of "Check Cashing Business", and Amending Section 306(2) to Prohibit that Use in the Central Commercial District (B-C) and to allow that Use in the Highway Commercial (B-H) District and Limited Commercial Districts	10/28/11	12/19/11
Emmaus Borough	1098	Amending the Borough of Emmaus Zoning Ordinance to Add Part 10, to Create an Overlay District Entitled "AQCOD - Age Qualified Community Overlay District"	6/28/13	9/3/13

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Emmaus Borough	1100	Amending the Borough of Emmaus Zoning Ordinance to Change Zoning Classification of 316 Wood Street from Medium Residential District to Light Industrial District	5/31/13	Not adopted
Emmaus Borough	1100	Amending the Borough of Emmaus Zoning Ordinance to Change Zoning Classification of 316 Wood Street from Medium Residential District to Light Industrial District	8/30/13	9/16/13
Emmaus Borough	1107	Amending the Borough of Emmaus Zoning Ordinance by Amending the Zoning Map of June 21, 1993, for the purpose of Designating as an Age-Qualified Community Overlay District a 12.54 Acre Parcel of LandPart of the former Indian Creek Golf Course	5/30/14	6/16/14
Emmaus Borough	1111	Amending the Borough of Emmaus Zoning Ordinance to Add Definitions for Brew Pub and Craft Brewery and provide for Brew Pub and Craft Brew Uses as Conditional Uses	8/4/14	9/2/14
Lower Macungie Township	n/a	Zoning Ordinance Amendment - Active Adult Community	1/28/05	not adopted
Lower Macungie Township	n/a	Zoning Map Amendment - R to C for a portion of 1670 Grange Road(aka 5949 Hamilton - Mayo)	4/1/05	not adopted
Lower Macungie Township	2005-06	Zoning Ordinance Amendment - Active Adult Community(Revised)	4/1/05	4/21/05
Lower Macungie Township	2005-07	Proposed Rezoning R to C North of Hamilton Blvd (5949 Hamilton - Mayo)	4/30/04	4/21/05
Lower Macungie Township	2006-02	Technical Amendment to SALDO	7/28/06	8/17/06
Lower Macungie Township	2007-05	Proposed Zoning Ordinance Amendment-Computerized and LED Signs	4/27/07	6/7/07
Lower Macungie Township	n/a	Proposed Rezoning R to C - Krocks Road at Route 222 Bypass	10/26/07	not adopted
Lower Macungie Township	n/a	Curative Amendments Petition by DD Lehigh Holdings, Inc.	12/20/07	Tied to new zoning map amendment
Lower Macungie Township	n/a	Proposed Rezoning A to ORLIC Quarry Road -Petition by AMB Properties	6/27/08	not adopted
Lower Macungie Township	n/a	Zoning Map Amendment - R to U for a 6.5 acre tract south of 222 Bypass	8/28/08	not adopted

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Lower Macungie Township		Land Use Assumptions Report	9/26/08	not applicable
Lower Macungie Township		Land Use Assumptions Report	6/26/09	not applicable
Lower Macungie Township	n/a	Quick Fix Zoning Amendment - Zoning Ordinance Amendments, SALDO Amendments & Rezoning	8/28/09	not adopted
Lower Macungie Township		Land Use Assumptions Report	9/25/09	not applicable
Lower Macungie Township	2009-13	Agricultural Preservation Zoning Ordinance Amendment	10/27/09	10/29/09
Lower Macungie Township		Agricultural Preservation Zoning Ordinance Amendment	10/30/09	10/29/09
Lower Macungie Township	2009-15	Traffic Impact Fee Ordinance	12/17/09	12/17/09
Lower Macungie Township	2010-08	Quick Fix Zoning Amendment - Zoning Ordinance Amendments, SALDO Amendments & Rezoning(Revised 8/2009 submission)	12/17/09	9/2/10
Lower Macungie Township	2010-06, 07	Proposed SALDO Ordinance Amendments Design Standards for lands zoned HI-SC, C-SC, UO and APO	5/28/10	7/1/10
Lower Macungie Township	2010-08	Quick Fix Zoning Amendment - Zoning Ordinance Amendments, SALDO Amendments & Rezoning	8/27/10	9/2/10
Lower Macungie Township	2011-02	Proposed Rezoning AP to HI-SC West of Quarry Road	10/1/10	1/20/11
Lower Macungie Township	2011-09	Proposed Rezoning S to C - Property east of Krocks Court. Petition of Goldco Partners	1/7/2011, also	7/7/11
Lower Macungie Township	2011-21	Codified Zoning and SALDO- Editorial amendments to zoning ordinance and SALDO	8/26/11	12/15/11
Lower Macungie Township	2011- 19,20,21	Zoning Ordinance Amendments -Solar and Wind Energy, Hills at Lockridge Overlay, Various Typo Changes	11/18/11	12/15/11
Lower Macungie Township	Res. 2012-07	Greenways Plan Draft	5/25/12	11/1/12

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Lower Macungie Township	2012-04	Zoning and SALDO Amendments - Access Management	6/29/12	7/19/12
Lower Macungie Township	2012-11	SALDO Amendments: Administrative Review/Minor Subdivision Submission Procedures	12/3/12	12/6/12
Lower Macungie Township	2013-01	Zoning Ordinance Amendment-Multifamily Units in Commercial Districts, Fuel Dispensing Station Standards	12/20/12	2/7/13
Lower Macungie Township	2013-02	Zoning Ordinance Amendments - Shopping Centers	2/1/13	2/7/13
Lower Macungie Township	2013-07	Zoning Ordinance Amendment - Correcting Reference to AR Zone to AP Zone as it relates to solar wind facilities	8/30/13	9/5/13
Lower Macungie Township	n/a	Zoning Map and Ordinance Amendment - 7513 Quarry Road	12/20/13	not adopted
Lower Macungie Township	Res. 2014-21	Comprehensive Recreation, Parks and Open Space Plan	8/1/14	7/17/14
Lower Macungie Township	2014-09,10	SALDO/Zoning Amendment - Replacement areas for on-lot sewage disposal systems	8/4/14	8/21/14
Lower Macungie Township	n/a	Zoning Map Amendment - Double D Lehigh, LLC	9/29/14	not adopted
Lower Milford		Sewage Facilities Act 537 Update (Text, Appendices 1-21)	7/26/07	2/14/08
Lower Milford		Limeport Sewer Project	3/3/08	
Lower Milford	114	Comprehensive Zoning Ordinance Update and Recodification	6/25/09	7/20/09
Lower Milford	Res. 2009-22	Parks, recreation and open space plan (SW Lehigh - Emmaus, L Milford, Macungie, U Milford)	10/23/08	12/17/09
Lower Milford	Res. 2010-8	Parks, recreation and open space plan (L Milford Only)	Copy in LVPC Library no date stamp or review letter	3/18/10
Lower Milford	118	SALDO Amendment: Highway Capital Improvements Fund	8/30/10	9/16/10

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Lower Milford	119	Act 167 Stormwater Management - Perkiomen Creek Watershed	In file 6/26/09	10/21/10
Lower Milford	121	Amending Ord. 116 Sewerage Connection	No Copy on file	12/15/11
Lower Milford		PUC: Reconstruction of the Hosensack-Wescosville 230kV Transmission Line	5/27/11	not applicable
Lower Milford	Res. 2013-7	A Vision for Limeport Village	LVPC Issued Letter of support 2/23/11. No copies on file	3/21/13
Lower Milford	124	Comprehensive SALDO Update and Recodification	10/26/12	4/18/13
Macungie Borough	2005-2	1. Zoning Ordinance Amendment - Definitions, Parking Requirements and Signs	2/24/05	4/4/05
Macungie Borough	2005-4	* Amendment to Subdivision and Land Development - Little Lehigh Creek Watershed Stormwater Management Plan	not	6/6/05
Macungie Borough	2006-03	2. Zoning Ordinance Amendment - No-Impact Home Based Business and Parking Standards	4/27/06	6/5/06
Macungie Borough	2007-04	3. Zoning Ordinance Amendment- R7.8 District Densities	5/25/07	6/4/07
Macungie Borough	2007-06	4. Zoning Ordinance Amendment- Maximum Number of Stories Manufacturing District	10/25/07	11/19/07
Macungie Borough	2008-03	5. Zoning Ordinance Amendment - Floodplains	6/27/08	7/21/08
Macungie Borough		Parks, recreation and open space plan (SW Lehigh - Emmaus, L Milford, Macungie, U Milford)	10/23/08	n/a
Macungie Borough	2008-06	6. Draft Subdivision and Land Development Ordinance	10/31/08	12/15/08
Macungie Borough	2009-03	Zoning Ordinance Amendment Permit Electronic Controlled Signs	7/22/15	2/2/09

Municipality	Ordinance Number	Ordinance/Amendment/Plan	LVPC Review	Municipal Adoption
Macungie Borough	2009-06	7. Proposed Zoning Designation Annexed Properties Along Fern Street	6/26/09	7/20/09
Macungie Borough		8. Revised Zoning Ordinance and Map and Summary of Changes(September 16, 2013)	9/27/13	N/A
Macungie Borough	2013-05	9. Draft Zoning Ordinance and draft zoning Map - Review #2	11/25/13	12/16/13
Upper Milford		Rezoning 4580 Chestnut Street from RS-R to Commercial	10/27/06	amended through 3/18/2010 zoning recodification
Upper Milford	114	Zoning Map Amendment - Tract on 6101 Chestnut St from C and R-A to purely R-A	2/23/07	5/3/07
Upper Milford	116	SALDO Amendment - Dedication of Land or Cash for Open Space and Recreation Areas	10/26/07	11/15/07
Upper Milford	117	SALDO & Zoning Ordinance Amendment - R-A and S-R Districts, other Various		not adopted
Upper Milford	117	SALDO & Zoning Ordinance Amendment - R-A and S-R Districts, other Various	10/26/07	11/15/07
Upper Milford	121	Zoning Ordinance Amendment - Deleting "Conditional Use", modifying Planned Development	8/1/08	9/18/08
Upper Milford		Parks, recreation and open space plan (SW Lehigh - Emmaus, L Milford, Macungie, U Milford)	10/23/08	Did not adopt
Upper Milford	126	Zoning Ordinance - Comprehensive Rewrite and Re-Adoption		3/18/10
Upper Milford	127	SALDO - Comprehensive Rewrite and Re-Adoption	12/17/09	3/18/10
Upper Milford	128	Adopting an Official Map	6/26/09	3/18/10
Upper Milford	129	Perkiomen Creek Act 167		12/29/10
Upper Milford	133	Saucon Creek Act 167 - Modified and changed impervious threshold from previous submission, sent amended version to LVPC for review		2/7/13
Upper Milford	126A	Zoning Ordinance Amendment - Administrative, defining terms, permitted uses	1/31/13	2/7/13
Upper Milford	106A	Zoning Ordinance Amendment - Act 167 SW Management Plan (Little Lehigh Creek)	1/31/13	2/7/13

Capital Improvements

One of the major tools for implementing a comprehensive plan is capital improvements planning. Capital improvements are projects that build or maintain important public facilities such as streets, parks, and police stations. These projects involve facilities that have a long life span and generally involve substantial expense. Their condition and placement will shape not only a community's current quality of life, but its future growth as well.

Municipality	Project	Date Proposed	Actions Taken 2005 - 2014
Alburtis	New Well and Storage Tank - Lockridge Park	June, 2005	Completed 2008
Alburtis	Hills at Lockridge Subdivision: private development but with interconnection to Lower Macungie water	Sep-05	Began 2014, currently in progress
Alburtis	Playground of Adventure - E. Stone Alley	2006	Completed 2008 (replaced old with ADA compliant)
Alburtis	Main St. Revitalization Project curb cuts, curbing, sidewalk	2007	Completed July 2011
Alburtis	Church Street - Reconstruction and sidewalk installation	Sep-12	Completed September 2013
Alburtis	Sewer repair - Approximately 28,600 ft of pipe lined	2014	Completed 2014
Emmaus	Construction of police station	2006 / 2007	Completed
Emmaus	Construction of brick crosswalks	N/A	Completed
Emmaus	Construction of Triangle Park improvements	2008-2009	Completed
Emmaus	Construction of Broad Street islands	N/A	Completed
Emmaus	Construction of handicap curbs/accessible curb cuts	Ongoing	In process - \$40K of work a year ongoing, \$300K to date
Emmaus	Detention basin along railroad at S. 2nd Street	N/A	Completed at cost of \$412K
Emmaus	Ongoing \$1.2M Stormwater Separation Projects	Ongoing	Continuing to complete \$75-100K of work a year
Emmaus	Rehab the 187-191 Main Street	2015	Completed with RACP grant
Emmaus	Façade Grants in downtown improvements	N/A	Completed, applying for new round w/ \$200K budget
Emmaus	Bridge Project over Leibert's Creek at Community Park	N/A	Completed
Emmaus	Bank Stabilization Project at Community Park Pool	N/A	Completed

Municipality	Project	Date Proposed	Actions Taken 2005 - 2014
Emmaus	Culvert project for 10th street	2016	To be completed 2016 for \$320K
Emmaus	Major reconstruction of Community Park baseball field and all-purpose field	2013-2014	Completed at \$110K
Emmaus	Anticipated purchase of 33 E. Minor to relocate all offices	2016-2022	Work to begin in 2016 with Town Hall relocation to be followed by Fire, Police, and Ambulance Services
Emmaus	Trail Projects – acquired Raven Mills property for new trails	N/A	Completed trail between Salisbury & Borough. Recent leg extends from Alpine Street to Klines Lane
Emmaus	Fire training tower building in fire grounds	2010	Completed
Emmaus	Purchased high tech SCADA system for Borough water system	N/A	Completed for \$100K
Emmaus	New installation of PPL transmission lines	2016	In process
Lower Macungie Township	222 Bypass between Wescosville and Breinigsville with traffic signals (Comp Plan)	2005	Complete
Lower Macungie Township	Route 100 Bypass around Trexlertown (Comp Plan)	2005	Complete
Lower Macungie Township	Relocated Weilers Roads (Comp Plan)	2005	Complete
Lower Macungie Township	Extention N Mill Creek Road (Comp Plan)	2005	Complete
Lower Macungie Township	A new Krocks Road (Comp Plan)	2005	Complete
Lower Macungie Township	Sauerkraut Ln from Route 100 to Brookside Rd with signal (Comp Plan)	2005	Complete
Lower Macungie Township	Extension S Mill Creek Rd to Spring Creek Rd (Comp Plan)	2005	Future Study
Lower Macungie Township	Left turn widening and signals at Lower Macungie Rd and Brookside Rd (Comp Plan)	2005	Complete
Lower Macungie Township	Sight distance improvements at East Texas Rd and Hidden Valley Rd (Comp Plan)	2005	Complete
Lower Macungie Township	Signal at Lower Macungie Rd and Wild Cherry Ln	2005	Complete
Lower Macungie Township	12 intersection light improvements	2005	Ongoing

Municipality	Project	Date Proposed	Actions Taken 2005 - 2014
Lower Macungie Township	Pedestrian Bridge at Graymoor	2005	Complete
Lower Macungie Township	Slipling Sanitary Sewer Mains	2005	Ongoing
Lower Macungie Township	Manhole repairs	2005	Ongoing
Lower Macungie Township	Sanitary Sewer Lateral repairs	2005	Ongoing
Lower Macungie Township	Beaumont at Brookside (Park)	2005	Complete
Lower Macungie Township	Spring Creek Estates (park)	2005	Complete
Lower Macungie Township	Wild Cherry (Park)	2005	Complete
Lower Macungie Township	Hills at Lockridge (pavilions, community building, top lot for park)	2005	Complete
Lower Macungie Township	Passive park at Spring Ridge Crossings	2005	Ongoing
Lower Macungie Township	Left turn widening and signal at East Texas Rd and Lower Macungie Rd (Comp Plan)	2011	Under Study
Lower Macungie Township	Walkways and crosswalks around Willow Elementary School	2012	Complete
Lower Macungie Township	Camp Olympic (driveway, parking lot, restrooms, basketball courts, pavilion upgrades, bridge repair all for park)	2012	Ongoing
Lower Macungie Township	Pedestrian Trail at Graymoor	2013	Complete
Lower Macungie Township	Pedestrian Trail at Spring Creek	2013	Ongoing
Lower Macungie Township	Walkways and crosswalk interconnections - township wide	2014	Ongoing
Lower Macungie Township	Bicycle Lanes	2014	Ongoing
Lower Macungie Township	Prohibiting left turns from Walnut and Lehigh streets onto Brookside Rd because of sight restrictions (Comp Plan)		Under Study
Lower Milford Township	Schultz Bridge Repair	6/26/05	Replaced Deck and repaired scour at end-walls
Lower Milford Township	Limeport Wastewater Treatment Facility	1/1/06	Went on line in 2010

Municipality	Project	Date Proposed	Actions Taken 2005 - 2014
Lower Milford Township	Lower Milford Township Park	2007	Established and created 2008
Lower Milford Township	d Township Stream Bank Stabilization on PPL Property 2008		FEMA Grant finally approved in 2013 and work completed same year.
Lower Milford Township	Culvert Replaced on School House Lane (north)	2011	Completed, Work performed in 2012
Lower Milford Township	Dirt Road Project on Schoolhouse Lane (north)	2012	Installed drainage facilities and surfaced road with DSA (Driving Surface Aggregate) with funding from the Dirt and Gravel Road program (LCCD)
Lower Milford Township	Install New Drainage Facilities on Portion of County Line Road	2013	Completed half of project in 2014 and completed in 2015
Lower Milford Township	Installed Two Crosswalks and Signage in Village of Limeport	2013	Completed in 2013
Macungie	Acquisition of Lehigh Street	N/A	Acquired in 2006 from State
Macungie	Acquisition of Church Street	N/A	Acquired in 2006 from State
Macungie	Lehigh Street - reconstruction including curbing, storm water, replacing hydrants and upgrade water line	N/A	Completed 7/2/2007
Macungie	Installed a lit crosswalk across Main Street	N/A	Completed 10/1/2007
Macungie	Installed stamped crosswalks along Walking Trail	N/A	Completed 10/1/2007 - along Chestnut St and Poplar St
Macungie	Lehigh Street streetlights	N/A	Completed 9/30/2009
Macungie	Installed a pedestrian bridge on Lehigh Street across Mountain Creek	N/A	Completed 6/15/2010
Macungie	Water System - upgrade to 4 log treatment	N/A	Completed 9/22/2011
Macungie	Lumber Street - full construction	N/A	Completed 9/15/2014
Macungie	Water System - installed generator to well pump	N/A	Completed 12/31/2014
Macungie	Main St Streetscape	Proposed Fall 2015	N/A
Macungie	Main St/Church St	Proposed Fall 2015	Signalization of intersection

Municipality	Project	Date Proposed	Actions Taken 2005 - 2014
Macungie	Cotton Street reconstruction	Proposed Spring 2016	Install new curbing
Upper Milford Township	Install Public Sewage, Vera Cruz	6/1/00	Completed 2014
Upper Milford Township	Replace Culvert bridge at Indian Creek & Swamp Rd.	6/1/04	Completed 2006
Upper Milford Township	Replace Concession stand/Storage facility at Lenape Park	6/1/04	Completed 2007
Upper Milford Township	From page 118 of the 2005 SW Lehigh County Comprehensive Plan: Curve removal and realignment of Rte. 100 in Upper Milford	4/21/05	Penn DOT posted truck restrictions and installed high friction wearing coarse in the curves.
Upper Milford Township	From page 119 of the 2005 SW Lehigh County Comprehensive Plan: Add traffic signals and a turning lane to Rte. 100/29 intersection	4/21/05	No progress
Upper Milford Township	From page 119 of the 2005 SW Lehigh County Comprehensive Plan: Improve signals and add Turn lane at the Rte. 100/29 Shimerville intersection.	4/21/05	2011, Installed electronic controls for traffic signal and installed emergency generator connections for the signal, installed LED bulbs.
Upper Milford Township	Replaced Culvert bridge at Kings Highway S. & Harvest Lane.	6/1/05	Completed 2007
Upper Milford Township	Replace Culvert bridge at Furnace Hill Rd. & Indian Creek Rd.	6/1/05	Completed 2009
Upper Milford Township	Repair Bridge at Buhman Rd. & Indian Creek Road	6/1/05	Completed 2007
Upper Milford Township	Purchase Kings Highway School & renovate for the new Municipal Center	6/1/05	Completed 2009
Upper Milford Township	Install Public Sewage S. 7th St. Phase 1	6/1/05	Completed 2009
Upper Milford Township	Install Public Sewage S. 7th St. Phase 2	6/1/05	Completed 2010
Upper Milford Township	Install Public Sewage system in Old Zionsville area	6/1/05	No progress
Upper Milford Township	Replace Culvert bridge East Macungie Rd.	6/1/10	Completed 2011
Upper Milford Township	Purchase & Demolish home at 4245 Shimerville Road to increase sight distance and add right of way to intersection with Mill Rd.	6/1/10	Completed 2010
Upper Milford Township	Replace Bridge deck Yeakels Mill Rd. @ Chestnut St.	6/1/10	Completed 2015

DEVELOPMENT ACTIVITY

The Lehigh Valley Planning Commission issues an annual report on subdivision and building activity in Lehigh and Northampton counties. Data for the six municipalities of Southwestern Lehigh County are provided below. PLANS REVIEWED BY LVPC, 2005-2014

Municipality	Preliminary Plans	Final	Total
Alburtis Borough	12	7	19
Emmaus Borough	31	28	59
Lower Macungie Township	171	97	268
Lower Milford Township	21	18	39
Macungie Borough	17	8	25
Upper Milford Township	64	43	107
Southwestern Lehigh County	316	201	517

APPROVED RESIDENTIAL UNITS BY TYPE

Year	Single Family	Townhouse	Apartment	Twin
2005	54	0	0	2
2006	73	112	4	6
2007	148	3	4	2
2008	4	-	-	-
2009	18	-	-	6
2010	5	-	-	-
2011	3	-	-	-
2012	1	-	1	-
2013	27	-	-	56
2014	31	-	-	-

APPROVED NON-RESIDENTIAL FLOOR-AREA BY TYPE, SQUARE FEET

Year	Industrial	Retail	Commercial	Office	Public and Quasi- Public	Recreational
2005	11,200	68,340	40,616	6,400	-	-
2006	3,000	38,653	-	36,603	53,930	-
2007	1,307,060	179,115	2,250	68,335	11,775	-
2008	1,505,000	4,958	8,040	1,604	-	6,500
2009	12,800	7,382	5,422	15,683	12,100	-
2010	-	19,246	49,070	3,366	77,913	-

Year	Industrial	Retail	Commercial	Office	Public and Quasi- Public	Recreational
2011	10,000	220,353	-	4,220	-	-
2012	498,000	-	17,200	1,752	-	-
2013	64,711	-	1,995	12,000	-	2,315
2014	118,080	-	-	4,560	14,250	-

Permit data collected by the US Census can also illuminate trends in development activity. According to US Census data for 2005-2014, the pace of new housing construction slowed across Lehigh County after 2005. The pace began to rebound after 2012, but the rebound observed in Southwestern Lehigh County was slower than that observed for the county as a whole. Housing permits in Southwestern Lehigh County represented 46.5% of all county housing permits in 2005, compared to 12.5% of all county housing permits in 2014.

Municipality	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2005- 2014
Alburtis	56	12	5	2	0	0	0	0	7	42	124
Emmaus	12	1	2	6	2	4	0	3	0	2	32
Lower Macungie Township	704	446	243	158	148	53	52	46	68	26	1,944
Lower Milford Township	12	6	2	7	5	0	2	4	3	11	52
Macungie	1	4	2	1	0	1	0	0	1	4	14
Upper Milford Township	20	24	34	18	4	20	10	9	20	12	171
Southwestern Lehigh County	805	493	288	192	159	78	64	62	99	97	2,337
Lehigh County	1,731	1,401	1,048	767	809	589	409	302	534	773	8,363

Source: U.S. Department of Commerce, Economics and Statistical Administration, U.S. Bureau of the Census

SALES ACTIVITY

Between 2005 and 2014, Southwestern Lehigh County accounted for 18.9% of Lehigh County's housing sales. This share increased significantly from 2005 to 2011, as housing sales remained relatively stable within the region while declining in the county. Single-family detached houses comprised the majority of home sales in Southwestern Lehigh County, accounting for 4,206 out of 7,525, or 55.9%, total sales.

HOUSING SALES BY YEAR

Municipality	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2005- 2014
Alburtis	38	49	51	38	41	22	24	26	29	31	349
Emmaus	194	168	150	130	128	123	104	79	146	161	1,383
Lower Macungie Township	538	531	467	607	438	368	326	283	414	432	4,404
Lower Milford Township	43	30	29	15	25	31	25	18	32	30	278
Macungie	73	62	48	33	50	41	25	20	35	36	423
Upper Milford Township	94	80	67	73	56	58	53	60	62	85	688
Southwestern Lehigh County	980	920	812	896	738	643	557	486	718	775	7,525
Lehigh County	6,529	6,202	4,795	4,173	3,412	3,088	2,461	2,498	3,293	3,304	39,755

HOUSING SALES BY TYPE, 2005-2014

Municipality	Single Family Detached	Single Family Attached	Condos	Others	Total
Alburtis	89	256	0	4	349
Emmaus	809	521	10	43	1,383
Lower Macungie Township	2,295	1,222	877	10	4,404
Lower Milford Township	275	3	0	0	278
Macungie	157	131	129	6	423
Upper Milford Township	581	85	0	6	672
Southwestern Lehigh County	4,206	2,218	1,016	69	7,509

Source: Lehigh County GIS Office

Within Southwestern Lehigh County, median sales prices were generally higher in the townships than in the boroughs. Among housing types, median sales prices were generally highest for single-family detached housing.

MEDIAN SALES PRICE, ALL SALES (IN THOUSANDS OF DOLLARS)

Municipality	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Alburtis	158	172.5	190	166.3	173	161.5	158.7	155	165	164.9
Emmaus	155.8	176.8	176.5	175	173.5	169	157.5	159.9	168.8	162.5
Lower Macungie Township	229.9	236.5	275	270	232.5	258	224	229.9	235	237.7
Lower Milford Township	232.4	264.9	309.9	270	248	267	263.5	252.5	242.5	285
Macungie	169.9	202	193.5	196	171.5	168	159.9	184.8	159.9	163.5
Upper Milford Township	225	270.5	255	254	236.5	226.5	221	281.2	258	258.5
Southwestern Lehigh County	195	220	230	240	207	220	198	200	205	208
Lehigh County	140	157	170	190	169	165	165	161.3	167	167.5

Source: Lehigh County GIS Office

MEDIAN SALES PRICE, SINGLE FAMILY DETACHED (IN THOUSANDS OF DOLLARS)

Municipality	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Alburtis	187	172	202	184.5	119.9	242	177	130	167.5	146
Emmaus	186	212.1	215	206	196.8	207.5	173.5	169.9	189	185
Lower Macungie Township	288	322.8	321.1	342.5	295	291.1	286	285	293	305
Lower Milford Township	232.4	264.9	309.9	270	248	267	263.5	257	250	285
Macungie	195	281.3	227.5	244.5	196.5	225.1	172.8	211	224.5	184.2
Upper Milford Township	235.2	288.5	277	245	265	234.9	221	304	281.3	260
Southwestern Lehigh County	253.5	280	285	312.5	260	265	235.3	260.4	257	249.9
Lehigh County	140	157	170	190	169	165	165	161.3	167	167.5

Source: Lehigh County GIS Office

MEDIAN SALES PRICE, SINGLE FAMILY ATTACHED (IN THOUSANDS OF DOLLARS)

Municipality	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Alburtis	157	172.3	189.7	164.5	173	155	157.5	156	165	164.9
Emmaus	125	150	159.5	146.4	148	148.7	130	116	131.5	126
Lower Macungie Township	190	219.9	220	220.8	202	210	194.5	188.9	192.3	195
Lower Milford Township	-	-	-	-	-	-	-	50	118.5	-
Macungie	156.5	164.8	182.5	195	182	160	149.5	171.3	151	148.5
Upper Milford Township	172	210	213	261.2	197	190	275	190	170.5	-
Southwestern Lehigh County	159.9	185.5	195	199.9	188	172.8	180	178.9	170	176
Lehigh County	140	157	170	190	169	165	165	161.3	167	167.5

Source: Lehigh County GIS Office

Southwestern Lehigh County offered a fairly balanced mix of price points in the years for which data was available (2010-2014). For each municipality, the table below shows the share of housing sales within each of five price brackets: below 80% of the county median, 80-100% of the county median, 101-125% of the county median, 126-150% of the county median, and greater than 150% of the county median.

SALES PRICE DISTRIBUTION, % OF SALES IN EACH PRICE BRACKET, 2010-2014

Municipality	Below 80% of County Median	80% to 100% of County Median	101% to 125% of County Median	126% to 150% of County Median	Greater than 150% of County Median
Alburtis	25.00%	43.20%	27.30%	3.00%	1.50%
Emmaus	32.50%	31.00%	23.30%	10.30%	2.90%
Lower Macungie Township	11.70%	10.80%	21.80%	16.00%	39.70%
Lower Milford Township	9.60%	5.90%	20.60%	15.40%	48.50%
Macungie	22.40%	41.00%	17.30%	12.20%	7.10%
Upper Milford Township	11.00%	12.60%	17.30%	12.90%	46.20%

LAND USE OF REGIONAL SIGNIFICANCE GLOSSARY

Term	Definition	Adapted From
Distribution Center	An establishment where goods, products, cargo and materials are received, stored and distributed further, usually by rail, air, or motor vehicle (esp. tractor trailers). While breakdowns and consolidations typically take place in distribution centers, making them similar to warehouses, they do not usually involve retail sales, assembly, or product processing.	The Latest Illustrated Book of Development Definitions, A Planners Dictionary
Gross Leasable Area	The total floor area for which the tenant pays rent as defined by the lease agreement, designed for the tenant's occupancy and exclusive use. While this can include basements and mezzanines (if exclusive to a single tenant), it does not include public or common areas, such as hallways, utility rooms, stairwells, or lobbies.	The Latest Illustrated Book of Development Definitions
Hospital	A structure or set of structures licensed as general medical and surgical hospitals, which are primarily engaged in providing diagnostic and medical treatment to inpatients with any of a wide variety of medical conditions. To qualify as a hospital and not a clinic or some other ancillary medical facility, the building (or any one building on the campus) must maintain inpatient beds and provide patients with food services that meet their nutritional requirements. These facilities have an organized staff of physicians and other medical staff to provide around- the-clock patient care services.	Georgia Rules promulgated by Department of Community Affairs, 2012 North American Industry Classification System
Mixed-Use Development	Situations where two or more basic land use types are located near each other so that they interact, which can involve buildings (multiple uses under one roof), communities (areas or zones with multiple uses) or planned developments (master planned projects, usually under a single developing entity, where specific parcels are designated for a variety of basic land uses). These entities may also include varying levels of density and/or intensity of use.	Georgia Rules promulgated by Department of Community Affairs
Regional	A structure or facility and the surrounding open space (if such exists) for the presentation of the performing arts, including indoor motion picture theaters, theaters for live performances, and indoor and outdoor concert halls, which typically involves or allows the consumption of food, up to and including a restaurant. The complex should be regional in scale in that a major performance can typically can expect to draw at least 10% of its audience from distances greater than a 15 mile radius. The definition does not include adult motion picture theaters.	Georgia Rules promulgated by Department of Community Affairs, A Planners Dictionary
Regional Recreation Complex	Any establishment whose main purpose is to provide the general public with an amusing or entertaining activity in which the public is more than a spectator (e.g., skating rinks, miniature golf courses, or bowling alleys) and where tickets are sold or fees are collected for that activity. The complex should be regional in scale in that, in a given day, it can expect to draw at least 10% of its audience from distances greater than a 15-mile radius.	A Planners Dictionary
School Campus Arrangement	The facilities (buildings, open space, dormitories, recreational facilities and parking) of public and private primary, vocational, and technical schools, as well as colleges and universities.	Florida Rules promulgated by the Administration Commission
Trip	The coming and going of a single vehicle from a single point. For example, 50 commuters driving to and from work would equate to 100 daily trips.	PennDOT Policies and Procedures for Transportation Impact Studies
Truck	Trucks with two axles and at least six wheels, over 10,000 pounds gross vehicle weight rating, including single-unit trucks and truck tractors, typically requiring a Commercial Driver's License for operation.	Federal Highway Administration

Term	Definition	Adapted From
Truck Stop	Any establishment that provides fuel, parking, and related goods and services to primarily support interstate truck transportation. Such facilities can include overnight parking and convenience facilities for meeting overnight sanitary needs (showers, laundry, and restrooms) but do not include beds or indoor lodging. Such facilities also do not include convenience stores that primarily sell goods and services to support the traveling (non-trucking) public.	Florida Rules promulgated by the Administration Commission
Truck Terminal	An area and building where trucks load and unload cargo and freight and where the cargo and freight may be broken down or aggregated into smaller or larger loads for transfer to other vehicles or modes of transportation. Unlike distribution centers, truck terminals usually serve many manufacturing firms and are owned by trucking companies. They often include the storage or parking of trucks awaiting cargo, as well as facilities for the servicing of trucks. Truck terminals generate more truck traffic than warehouses or distribution centers though it is usually during off-peak hours.	The Latest Illustrated Book of Development Definitions, A Planners Dictionary
Warehouse	A building used primarily for the storage of goods and materials that can also function as a distribution center, but often also serves additionally for product processing, assembly and retail sales. In contrast with distribution centers, the holding time for merchandise in a warehouse is generally short.	The Latest Illustrated Book of Development Definitions, A Planners Dictionary

FUTURE LAND USE PLAN METHODOLOGY

INTRODUCTION

The SWL Future Land Use Plan (FLUP) was developed through a comprehensive GIS analysis. This analysis was conducted by analyzing a grid of 10'x10' cells across the entire SWL region. Each cell was evaluated for multiple land uses suitability: agriculture, natural features and development. Each suitability layer was given a grade (High, Medium, and Low) of suitability for each of the land uses. These suitability layers are then compared and evaluated for areas of opportunity and competition. Areas of opportunity are where only one land use isidentified as the highest suitability. Areas of competition are areas where the highest suitability was equal to another land use suitability. The evaluation and identification was made possible by implementing the Land Use Conflict Identification Strategy (LUCIS) model. The areas of competing land use suitability could then be resolved based on community input. This document presents the details of this process used in developing the SWL FLUP.

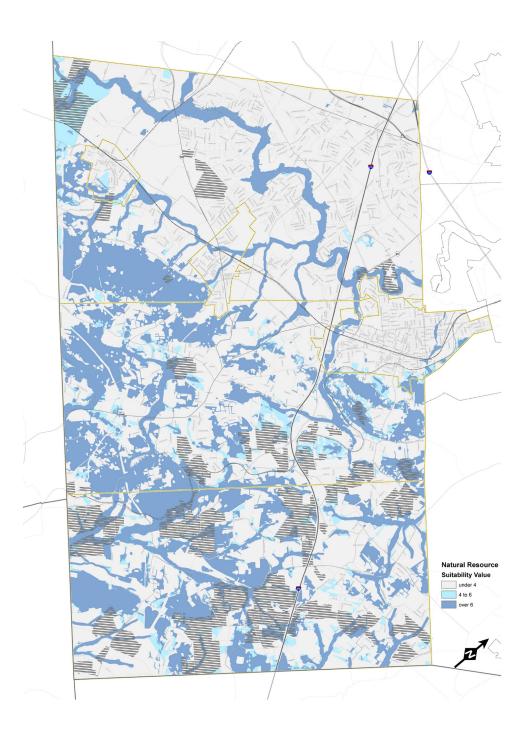
SUITABILITY ANALYSIS

The first step in the process was to identify areas of the SWL region that were suitable for each of the three land uses (agriculture, natural features and development). Suitability analysis represents a scoring for each cell based on overlapping features that would make a cell suitable for a specified use. The following pages present each of the suitability analysis results.

Natural Features

The following layers were used in the Natural Features Suitability analysis:

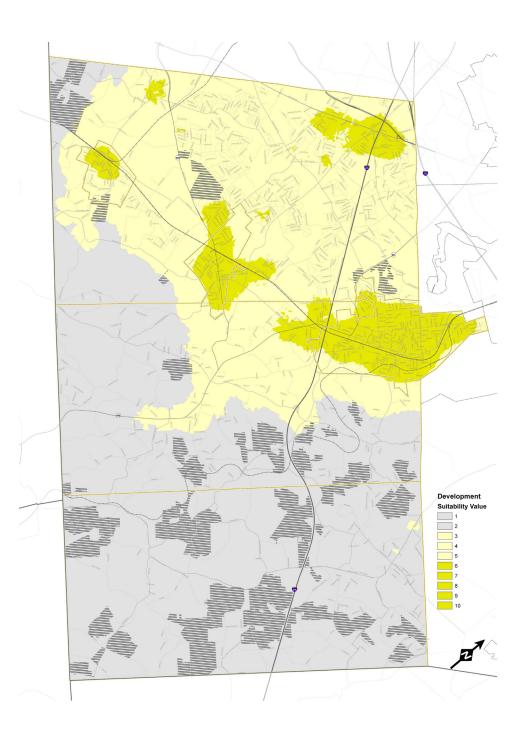
- Natural Heritage Inventory (NHI) Core Habitat
- NHI Supporting Landscapes
- Local Natural Areas
- Woodlands
- Interior Woodlands
- Steep Slopes
- Hydrography
- Riparian Buffers
- Floodplains
- Wetlands
- Hydric Soils



Development

The following layers were used in the Development Suitability analysis:

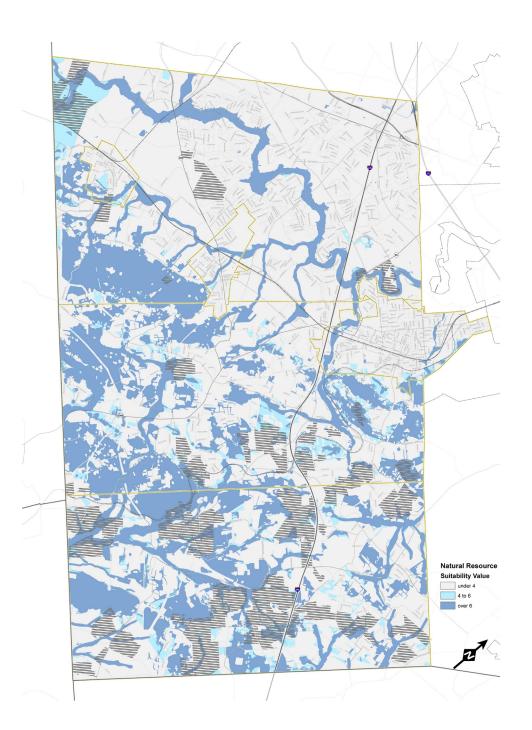
- Proximity to Sewer Service
- Proximity to Water Service
- Proximity to Major Roads
- Road Density
- Intersection Density
- Existing Building Footprint Density



Natural Features

The following layers were used in the Natural Features Suitability analysis:

- Natural Heritage Inventory (NHI) Core Habitat
- NHI Supporting Landscapes
- Local Natural Areas
- Woodlands
- Interior Woodlands
- Steep Slopes
- Hydrography
- Riparian Buffers
- Floodplains
- Wetlands
- Hydric Soils

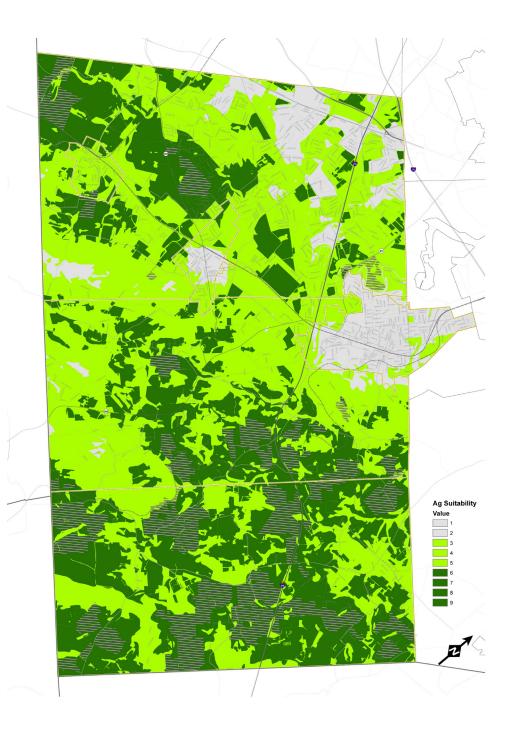


LUCIS

Suitability layers were overlaid and analyzed for areas of Opportunity and Competition. Areas of a single use ranked higher than others was determined to be an area of Opportunity. Areas where two or even three land uses were ranked equally were determined to be in competition or conflict for that area. The areas of competition or conflict then became the areas of focus. Suggestions as to how to resolve the conflicts were solicited from the steering committee and a Public Meeting.

Public Meeting

The Public Meeting was held on April 26, 2016and had an attendance of 19 people. After being presented with the process, participants were given a map depicting areas of conflict and areas of opportunity as well as a spreadsheet depicting every LUCIS combination. Participants were then asked were to apply different rules (ex. Natural features beats Agriculture and Development) for resolving different combinations of competing and conflicting land uses.



FIRST DRAFT REVISIONS

The following rules were applied to the first draft FLUP Map:

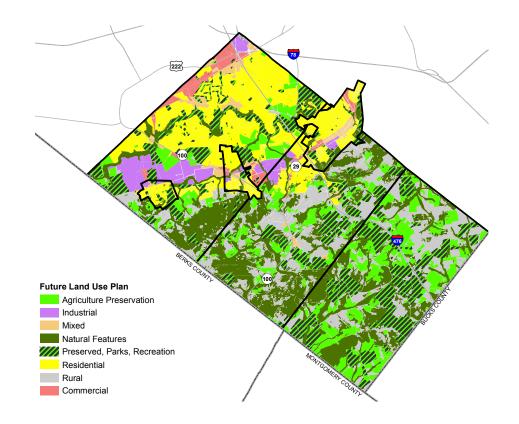
- High Natural features wins all conflicts.
- Medium and low natural feature ties were resolved in favor of Natural features for areas of South Mountain and Mill Hill.
- A fourth category (Rural) was added for areas of agriculture or development suitability that were outside of the High development suitability areas.

SECOND DRAFT REVISIONS

Comments on the first draft included the desire for additional development categories. This prompted an additional LUCIS analysis only in areas for development. This analysis used existing land use as a primary input to determine where the following uses were most appropriate: Commercial, Warehousing/Industrial, Residential and Mixed-Use. Once the analysis was complete the first draft development areas were assigned one of the above categories.

FINAL DRAFT REVISIONS

The second draft was provided to the steering committee for further refinement. The additional refinements were typically based on local knowledge of appropriate land use for the area. Other modifications included dividing the Residential category into a medium and high density. This was accomplish by utilizing a raster density layer to determine areas of higher existing density. Fine tuning provided by municipalities based on local knowledge.



SURVEY RESULTS

On January 5th and 6th, 2016, the Lehigh Valley Planning Commission conducted a series of roundtable discussions, or planning "charrettes," attended by over 100 community stakeholders. The themes distilled and refined across these meetings provided the basis for a 26-question public opinion survey that assessed thematic, demographic and quality-of-life elements in Southwestern Lehigh County. The Lehigh Valley Planning Commission collected survey responses via random and nonrandom web-based approaches. During the collection period of February 11th to February 29th, 2016, a total of 1,333 respondents completed the survey.

For the random sample approach, the Lehigh Valley Planning Commission mailed a postcard to a random sample of residents within the sixmunicipality region inviting them to complete the online questionnaire. This approach generated 744 responses, producing a margin of error of +/- 4% at the 95% confidence interval. To increase the precision of the estimates and correct for differential coverage by geographic and demographic detail, the resulting data was weighted based on four variables: age, educational attainment, place of residence and gender. All analyses for this sample were performed based on these weighted data. The non-random, self-administered survey approach was open to all Southwestern Lehigh County stakeholders during the same collection period as the random

sample component. Working through the six municipalities, the Steering Committee disseminated the web-based survey via municipal email lists, websites, Facebook pages and public meetings. In addition, the Lehigh Valley Planning Commission shared the online survey via stakeholder email lists, a geographically targeted Facebook promotion, the Lehigh Valley Planning Commission and Southwestern Lehigh County websites, Twitter, LinkedIn, flyers at various public locations and print upon request. This approach produced 589 responses and allowed individuals who did not receive the random sample to contribute their responses and feedback to an identical survey. However, responses to the two surveys remained distinct from one another and were calculated and interpreted separately to preserve the statistical validity of the responses from the random sample. The ability to administer the survey to a random sample, with results that are similar to those from a non-random sample, ensures confidence in these results. Furthermore, this multi-faceted approach allowed for comparison of the two samples. Responses for the two samples largely complimented each other, with respondents identifying transportation, natural resources and agricultural assets as important focus areas for improving quality of life in Southwestern Lehigh County.

Community-Wide Survey



Random Sample

- Selected among addresses in the SWL municipalities
- Randomness allows for statistically valid analysis
- Invited to a weblink through postcard
- Survey remained open from February 11th to February 29th
- · Weights based on age, education, place of residence, gender
- +/- 4% margin of error at 95% confidence interval
- 744 responses

Self-Administered

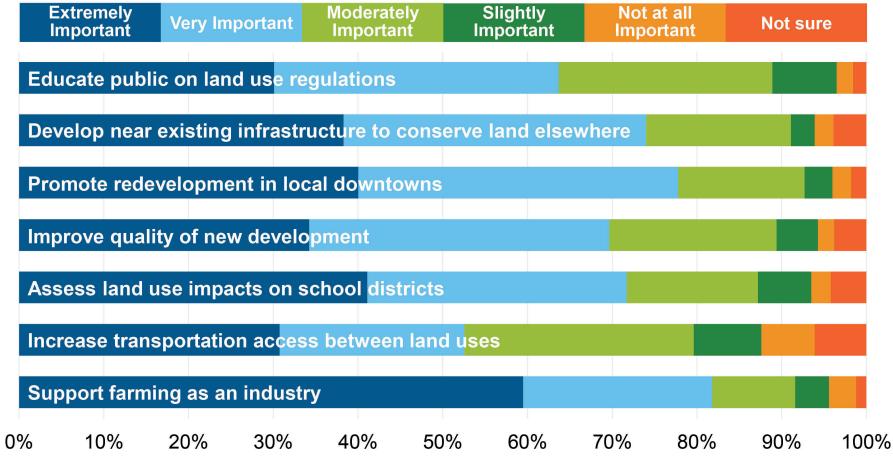
- Promoted through a variety of media
- Anyone interested could participate
- Identical survey to random sample
- Received a different link to sequester the result
- 589 responses



Place of residence	
Answer options	Weighted random
Alburtis	4.6%
Emmaus	19.2%
Lower Macungie	49.0%
Lower Milford	8.7%
Macungie	4.5%
Upper Milford	14.0%
Lehigh County (outside of Southwest Lehigh County)	0.0%
Northampton County	0.0%
Pennsylvania (outside of Lehigh + Northampton Counties	0.0%
Out of state	0.0%
Not sure	0.0%
Total respondents	632

Length of residence	
Answer options	Weighted random
Less than 1 year	4.9%
1 to 2 years	3.4%
3 to 4 years	6.1%
5 to 10 years	21.2%
11 to 20 years	18.6%
More than 20 years	45.7%
Not sure	0.0%
Total respondents	636

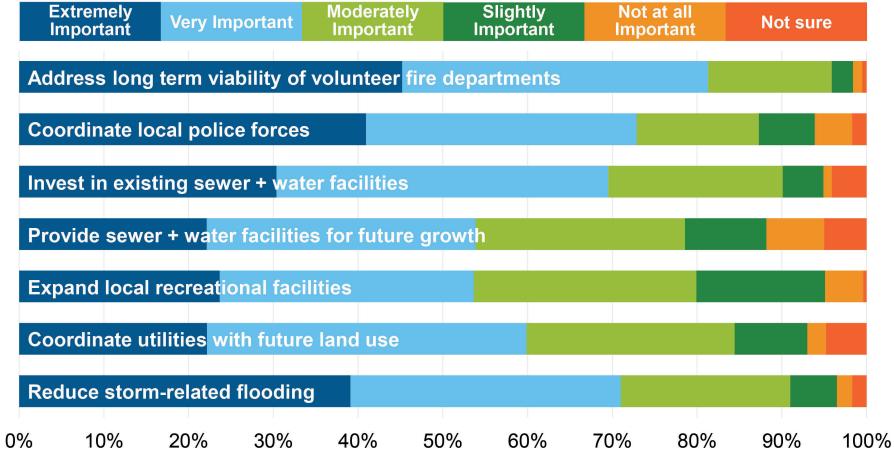






	remely oortant	Very Imp	oortant	Moderate Importar		Slightly nportant	Not a Impo		Not sur	е
Impro	ove conn	ections k	between	stree <mark>ts</mark>						
Expa	nd bicvc	le + pede	stria <mark>n n</mark>	etwork						
		t traffic o								
				loaus						
		orridor s								
Calm	vehicle t	traffic thr	ough pe	destrian	corridors					
Addre	ess parki	ing in do	wntowns	5						
Impro	ove tracto	or tra <mark>ile</mark> r	parking							
6	10%	20%	30%	40%	50%	60%	70%	80%	90%	10





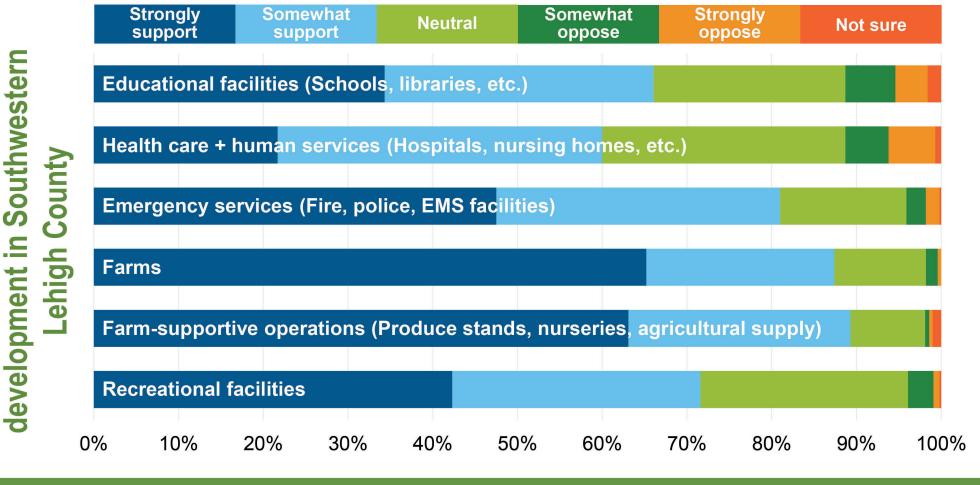
DATA COMPANION TO THE SOUTHWESTERN LEHIGH COUNTY COMPREHENSIVE PLAN



Strongly support	Somewhat support	Neutral	Somewhat oppose	Strongly oppose	Not sure
Downtown/Sm	all retail				
Strip mall + big	g-box retail				
Hotel					
W <mark>arehous</mark> e					
Manufacturing					
Professional o	office				
0% 10%	20% 30%	40%	50% 60%	70% 80	90% 10



-evel of support for new

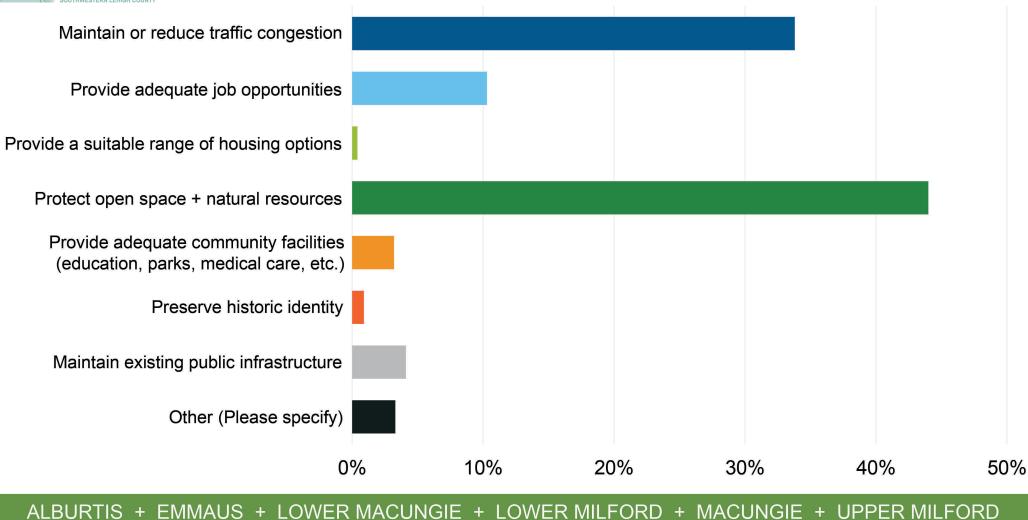




	Strongly support	Somewhat support	Neutral	Somewl oppos			ıre
	Single-family	detached					
County	Apartment						
Lehigh Co	Twins + town	nomes					
Leh	Age-restricted	1					
	Secondary su	ites + tiny hom	es				
	0% 10%	20% 30%	40%	50% 609	% 70%	80% 90%	100%



Southwestern Lehigh County's greatest challenge



DATA COMPANION TO THE SOUTHWESTERN LEHIGH COUNTY COMPREHENSIVE PLAN

PLANSWL MUNICIPALITIES INFORMATION

Alburtis - Emmaus - Lower Macungie - Lower Milford - Macungie - Upper Milford

ALBURTIS

Supervisor/Council

Ronald Delaco Steven Hill Kathleen Raines Vanessa Taggart Stephen Kaufman Sherryann Oels John Aleszczyk

Planning Commission

Jason Douglas Robyn Petrie Steven Mehl Ron Delaco Brain DeRienzo Sharon Trexler Bernard Servagno

Zoning Hearing Board

Nick Evans June Claydon Thomas Miller David Kutzor

Manager/Mayor/Administrator

Mayor Kathleen Palmer Manager Sharon Trexler

EMMAUS

Supervisor/Council

Brent Labenberg Wesley Barrett Roy Anders, Jr. Nathan Brown Chris DeFrain Lee Ann Gilbert Jeff Shubzda

Planning Commission

Michael Gibson Robert Toth, Sr. Jackie Parks Todd Ackerman JP Raynock David Weidman Brent Stringfellow

Zoning Hearing Board

Roger Steinmayr Susan Schmidt Theodore lobst II Ronald Gilbert Don Nickerson Ronald Corkery James Farnsworth

Manager/Mayor/Administrator

Mayor Winfield lobst

LOWER MACUNGIE TOWNSHIP

Supervisor/Council

Douglas Brown Benjamin Galiardo Brian Higgins Ronald R. Beitler Ronald W. Beitler

Planning Commission

Maury Robert Brent McNabb Ann Bartholomew Jon Hammer Thomas Beil George Doughty Robert Rust

Zoning Hearing Board

Scott Aquila Thomas Sesta E. Keller Kline, III Richard Ward Melissa Burchett

Manager/Mayor/Administrator

Manager Bruce Fosselman

LOWER MILFORD

Supervisor/Council

Donna Wright Michael Snovitch John Quigley

Planning Commission

Lois Gadek Ellen Koplin Cathleen Bannon Alicia Johnson Gail Linde Bernard McManus Donna Wright

Zoning Hearing Board

Sheila Quigley Girard Graham Roger Hall Denise Holub James Stango

Manager/Mayor/Administrator

Manager Ellen Koplin

MACUNGIE

Supervisor/Council

Chris Becker Roseann Schleicher Greg Hutchison David Boyko John Yerman Alma Akinjiola Marvin Moyer

PLANNING COMMISSION

Allen Crawford John Yerman Linn Walker Chris Becker Betty Silfies

Zoning Hearing Board

John Horner Jr. Ronald Karboski Barry Bloch

Manager/Mayor/Administrator

Manager Chris Boehm Mayor Gary Cordner

UPPER MILFORD

Supervisor/Council George DeVault Daniel Mohr Robert Sentner

Planning Commission

Matthew Hunter Joyce Brown Phil Hartranft Susan Smith Henry Kradjel Ronald Guth Angelika Forndran Judith Parker Robert Sentner

Zoning Hearing Board

Francis Caputo Thomas Roland Edward Martin Linda Feiertag Bennett Kohler Dannell Macilwraith Lawrence Butler

Manager/Mayor/Administrator

Manager Daniel DeLong

LEHIGH COUNTY EXECUTIVE Tom Muller

LEHIGH COUNTY COUNCIL

Thomas Creighton III Percy Dougherty David Jones Geoff Brace Michael Schware Brad Osborne Amanda Holt Dan Hartzell Marty Nothstein

EAST PENN SCHOOL DISTRICT

Superintendent Michael Schilder

SOUTHERN LEHIGH SCHOOL DISTRICT

Superintendent Kathleen Evison

STATE REPRESENTATIVES

Ryan Mackenzie (Alburtis, Lower Macungie, Macungie)

Justin Simmons (Emmaus, Lower Milford, Upper Milford)

STATE SENATORS

Patrick Browne (Alburtis, Lower Macungie, Macungie, Lower Milford, Upper Milford) Lisa Boscola (Emmaus)

FEDERAL REPRESENTATIVE

Charlie Dent

FEDERAL SENATORS

Bob Casey Pat Toomey

SWL Noun Project Icon Illustrators: Diego Naïve, Danil Polshin, OCHA Visual Information Unit, Chameleon Design, Tinashe Mugaye, Gregor rešnar and SooAnne. All other images were free, designed, or modified

LEHIGH VALLEY PLANNING COMMISSION

Liesel Dreisbach, Chair	Richard Molchany (alt.)
Stephen Repasch, Vice Chair	Christina V. Morgan
John N. Diacogiannis, CPCU,	Thomas Muller
Treasurer	Steven L. Neratko (alt.)
Christen T. Borso	Thomas J. Nolan
John Brown	David O'Connell
Gordon Campbell	Brad Osborne
Eugene Clater	Sara Pandl, AICP, RLA
Robert Donchez	Salvatore J. Panto, Jr.
Percy H. Dougherty, PhD	Edward Pawlowski
Karen Duerholz	Pamela Pearson, MBA
Charles W. Elliott, Esq.	Hayden Phillips
George F. Gemmel	Lynn Prior
Steven L. Glickman, RA, NCARB	Kathy Rader
Armand V. Greco	Michael Reph
Darlene Heller, AICP (alt.)	Tina Roseberry (alt.)
Tim Herrlinger (alt.)	Kevin A. Schmidt
Kent H. Herman, Esq.	Julie Thomases
Edward D. Hozza, Jr.	Christine Weaver
Robert A. Lammi	Donna Wright
Kevin Lott	

LEHIGH VALLEY PLANNING COMMISSION STAFF

Becky A. Bradley, AICP, Executive Director George G. Kinney, AICP, Director of Transportation Planning Geoffrey A. Reese, P.E., Director of Environmental Planning Bruce R. Rider, Director of Administration David E. Manhardt, AICP, Chief Geographic Information Systems Planner Tracy L. Oscavich, Associate Director of Development Justin Barclay, Senior Geographic Information Systems Planner Michael S. Donchez, Senior Transportation Planner Teresa Mackey, Senior Environmental Planner Tamara Mittman, Senior Community Planner Susan L. Rockwell, Senior Environmental Planner John D. von Kerczek, Principal Community Planner Whitney A. Burdge, Urban Design Planner Bowen Liu, Geospatial and Economic Systems Developer Dharam Paul Nohar, Accountant Erin Willis, Executive Secretary Brian Hite, Senior Planning Technician

PUBLIC PARTICIPATION

Dave Ainoz Scott Alderfer Steve Althouse Steve Altmorao Jim Baker Chuck Ballard Thomas Bartholomew Chris Basile Trey Bianco Bernie Bojnowski **Troy Bower** Eric Boyle Joe Colosi Chris Cope Bill Coyle La Belle Cuisine Judv Darher Dave Detwiler Bill Devdy Risa Donegan Kate Durso Ron Eichenberg Melody Engel **Diane Fleming** Jane Fretz Sonya Fullerton Dawn Gorham Chris Greb Liesel Gross Trai Guzie Virginia Haas Tim Haas Tracy Hausknecht

John Hayas Joe Hayes Lisa Heineman Kirsten Hess **Amy Hillegass** Bruce Hillegass Karen Holt Donna Hosfeld Dan Hunsicker Adam Jaindl David Jaindl Nancy Jo Mulry Jeremy Jones Elizabeth Judge Wyant Ryan Kern Dain King David Knerr Thomas Kociuba Randy Kraft Marian Lanshe Dave Laubach Frederick Learev Mark Lichtenwalner Houstin Lichtenwalner Lowell Linde Dave Lobak Jovce Marin Steve Markowitz Kenneth Mattos Joe McAndrew Michael McCready Laura McCready Julie McDowell

Jeff McElhaney Douglas McNair Joyce Moore Neil Moser Nancy Jo Mulry Vince Mulry Ken Navitsky John Neilson Susan Nenstiel Nancy O'Keef Kevin Oldt Jeffrey Ott Jim Palmquist Leah Papp Shane Pepe **Roger Phillips** Steve Pohowsky Dustan Raines **Doug Reichley** Edward Rekai Frances Rekai Kathee Rhode Christopher Sacchi Lynn Sallash John Schlener Donald Scott **Bill Sellers** Anton Shannon Carol Sheen Lori Sickenberger Michael Siegel Matt Skekel Tracy Smith

Teri Sorg-McManamon Nicole Steirer Chris Steirer Svbil Stershic Mike Stershic Nicole Stierer Matt Szuchyt Chris Takacs Lindsay Taylor Julie Thomases Ron Thornton Jeff Titchenal **Beth Titchenal** Monica Trilli Philip Vanim Andy Wagaman Steve Walsh Andy Werner Sarajane Williams Elizabeth Wyant Vincent Yeakel Brad Youst Fred Zahradnick Jeff Zehr

