

Pen Argyl - Plainfield - Wind Gap

Regional Comprehensive Plan



Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Pen Argyl Borough
Plainfield Township
Wind Gap Borough

Northampton County, Pennsylvania

September 2004

Adopted by the Pen Argyl Borough Council on September 7, 2004

Adopted by the Wind Gap Borough Council on September 7, 2004

Adopted by the Plainfield Township Board of Supervisors on September 8, 2004

Consultants

Urban Research and Development Corporation
Bethlehem, PA

Keystone Consulting Engineers
Bethlehem, PA

The preparation of this Comprehensive Plan was financed, in part, through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.

Pen Argyl—Plainfield—Wind Gap Planning Committee

<i>Name</i>	<i>Representing</i>
Tom Campanella (former member)	Pen Argyl Borough
Bob Cornman	Plainfield Township
Tony Curcio	Wind Gap Borough
Matt Glennon	Plainfield Township
Winton Male Jr.	Wind Gap Borough
Jane Mellert	Plainfield Township
Hon. Judy Piper	Pen Argyl Borough
Bill Pysher (former member)	Wind Gap Borough
Robin Zmoda	Pen Argyl Borough
Dave Berryman (ex officio)	Lehigh Valley Planning Commission
Olev Taremäe (ex officio)	Lehigh Valley Planning Commission

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Scott Parsons
Karen Skorochod

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BACKGROUND

The first step in a comprehensive planning effort is to understand the community today. Current and future trends will continue to influence the conservation and development of the Pen Argyl—Plainfield—Wind Gap area. After an introduction to the planning process, the background chapter presents information on the following subjects which describes the past and present character of the region:

- Regional Location
- County and Regional Policies
- History
- Population
- Housing
- Economics
- Existing Land Use
- Natural Features
- Community Facilities and Services
- Transportation
- Current Zoning Policy
- Adjacent Municipalities

INTRODUCTION TO THE PLANNING PROCESS

The three municipalities formed the Pen Argyl—Plainfield—Wind Gap Planning Committee to prepare a multimunicipal plan in accord with the Pennsylvania Municipalities Planning Code (Act 247, as amended). The committee is composed of two representatives from each of the municipalities. Through a competitive bid, interview, and selection process, the committee retained the consulting team of Urban Research and Development Corporation and Keystone Consulting Engineers (both from Bethlehem, PA) to help develop the plan. The Lehigh Valley Planning Commission (LVPC) provided technical assistance to the committee and consultants. Regular, monthly meetings of the committee, consultants, and LVPC began in June 2002.

Understanding the Plan

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* begins with an examination of the community and its many characteristics, from population and other demographic information to public services (such as water, sewer, and recreation) to public opinion, in the form of a public informational meeting and questionnaire. The background studies (chapter 1) identify the issues which must be addressed in the policies of the comprehensive plan.

The plan itself (chapter 2) was developed to address the issues identified in the background studies. The focus of a comprehensive plan is land use. Recommendations are also included in other areas

which lend support to and guide community efforts in housing, transportation, and community services. Nevertheless, the legally binding tools which emanate from the comprehensive plan are local ordinances (typically a zoning ordinance and a subdivision and land development ordinance) which address the use and development of the land. Therefore, land use and land use policy are the strongest elements of the comprehensive plan.

The action program, with which chapter 2 concludes, provides further detail for implementing the recommendations in the plan. The action program identifies a time frame or priority for each action, and those entities responsible for implementing each action.

REGIONAL LOCATION

The Pen Argyl—Plainfield—Wind Gap area is part of a region known as the Slate Belt, which is located along the Northampton County-Monroe County border between the City of Easton and the Borough of Stroudsburg (Map 1.1). State Routes 33 and 191 connect the regional planning area with the Lehigh Valley and I-78 to the south, and the Pocono Mountain region and I-80 to the north. State Route 512, which runs through all three municipalities, also connects to the Greater Lehigh Valley area of Allentown, Bethlehem, and Easton.

Plainfield Township totally encompasses the Boroughs of Pen Argyl and Wind Gap in the northern tier part of the region. Plainfield Township is bordered by Bushkill Township to the west, Ross and Hamilton Townships to the north in Monroe County, Washington and Lower Mount Bethel Townships to the east, and Forks Township and Stockertown Borough to the south.

Regional growth pressures are affecting Northampton County from several directions. The growth from the Lehigh Valley, Philadelphia, and New York City have accelerated into the rural parts of Northampton County because of its accessibility to major interstate roadways.

COUNTY AND REGIONAL POLICIES

Planning and development policies for counties and municipalities surrounding the Pen Argyl—Plainfield—Wind Gap area can affect local planning and land use character. Two counties surround the area: Northampton County to the west, south, and east and Monroe County to the north. Municipalities surrounding the area include:

- Bushkill Township to the west.
- Stockertown and Forks Township to the south.
- Lower Mount Bethel and Washington Townships to the east.

Map 1.1
Regional Location



The planning function in Northampton County is performed by the Lehigh Valley Planning Commission (LVPC). Northampton County adopted its latest comprehensive plan¹ on 15 July 1993. The county land use plan identifies the following areas in and around the Pen Argyl—Plainfield—Wind Gap region:

- *Urban Development*
 - Boroughs of Wind Gap and Pen Argyl, excluding natural resources
 - PA 512 corridor between Wind Gap and Pen Argyl, excluding natural resources
 - Areas of Plainfield Township south of Wind Gap and southeast of Pen Argyl

¹ *Comprehensive Plan for Lehigh and Northampton Counties, Pennsylvania*; LVPC; April 1993

- *Urban Development Subject to Sewer and Road Construction*
 - Areas of Plainfield Township west of Wind Gap and northeast of Pen Argyl
 - Borough of Stockertown
- *Natural Resources*
 - Blue Mountain
 - Streams and tributaries
 - Known wetlands
- *Farmland Preservation*
 - Central, eastern, and southern portions of Plainfield Township
 - Areas of Bushkill and Washington Townships near or adjacent to Plainfield Township
- *Rural Development*
 - Area between Wind Gap and Pen Argyl south of PA 512 corridor, excluding natural resources
 - Area of Plainfield Township south of Pen Argyl, excluding natural resources
 - Sullivan Trail corridor in Plainfield Township

Blue Mountain forms the entire northern boundary between Monroe County and the Pen Argyl—Plainfield—Wind Gap area. The Monroe County Open Space Plan, June 2001 and the West End Open Space and Recreation Plan, January 2003 strongly endorse the preservation of Blue Mountain as steep slopes, a stream corridor (at the base of the mountain), and the location of several natural areas.

HISTORY

The Plainfield/Pen Argyl/Wind Gap area was originally founded as Plainfield Township in 1762. The Borough of Pen Argyl was incorporated as a separate governmental unit in 1882, and the Borough of Wind Gap followed 10 years later.

The slate industry began to grow in the mid-19th century by developing many quarries in the northern half of the Slate Belt region. As the slate industry prospered, numerous employment opportunities attracted many immigrants from Europe, including people of Welsh, English, German, Italian, and Irish heritage.

With the growing population in the Slate Belt region, and the growing number of slate quarries located here, railroads were built to transport slate products to market. The major highway in the region was the Easton-Wilkes Barre Turnpike. Today, the road is known as Sullivan Trail or Old Route 115.

By the early 20th century, the local economy began to decline rapidly as slate was replaced by other, often less expensive, materials. As the slate industry weakened, the region's proximity to the New York and Philadelphia metropolitan areas helped the textile industry grow. The labor pool, enlarged by the decline in slate, allowed the Slate Belt garment industry to employ an unusually high number of men as well as women, the traditional industry workers.

By 1920, a trolley line linked the Pen Argyl—Plainfield—Wind Gap area to Nazareth, Bath, Bethlehem, and Easton. The trolleys and highways allowed people of the Slate Belt region to commute to areas where more diverse industrialization had taken place. The growth in transportation also linked the economy of the Slate Belt with the economy of the Lehigh Valley. Throughout the mid- and late 20th century, commercial and industrial expansion spread into Plainfield Township, although the township still has a strong agricultural base.

The National Register of Historic Places is part of the National Register—the nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

The National Register identifies approximately 75,000 historic resources that are either formally listed or have been identified as eligible for listing. Forty-three listed sites are located in Northampton County, one of which is located in the Pen Argyl—Plainfield—Wind Gap area:

Weona Park Carousel Route 512 Pen Argyl Borough listed: 4 August 1999

As part of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*, a comparison of known historic sites and villages with existing commercial zoning reveals that no National Register sites or districts or existing villages appear to be currently threatened by commercial redevelopment. The issue of potential threats to historic buildings and villages should be reviewed as land uses plans and zoning ordinances are revised.

Zoning provisions can be written to discourage thoughtless demolition of historic or old buildings. For example, if a main building on a lot was built before 1940, a municipality can delay the issuance

of a demolition permit to allow time to discuss alternatives to demolition with the property-owner, which might include selling the building to someone who would rehabilitate the structure. Regulations addressing the conversion of buildings can also be used to reduce threats to historic buildings posed by redevelopment.

POPULATION

Demographics are the numerical data used to describe the people of a region. The following chapter includes information on population, housing, and employment for the Pen Argyl—Plainfield—Wind Gap region.

Total population is one of the most commonly recognized measures of community size. Changes in population illustrate how an area grows or declines over time. Population trends also help in making assumptions about future growth.

Each of the three municipalities in the area grew between 1960 to 2000, although Pen Argyl Borough had a decrease in population in the 1960s and 1970s (Table 1.1). During the past 40 years, the area has grown in population by 3.6 percent—faster than the state as a whole, but less than in other parts of Northampton County, particularly those with direct access to New York via Interstate 78.

**Table 1.1
Total Population, 1960–2000**

MUNICIPALITY	POPULATION					CHANGE, 1990–2000	
	1960	1970	1980	1990	2000	NUMBER	PERCENT
Pen Argyl Borough	3,693	3,668	3,388	3,492	3,615	123	3.5
Plainfield Township	3,614	4,288	4,833	5,444	5,668	224	4.1
Wind Gap Borough	1,930	2,270	2,651	2,741	2,812	71	2.6
Region Total	9,237	10,226	10,872	11,677	12,095	418	3.6
Northampton County	201,412	214,545	225,418	247,105	267,066	19,961	8.1
Pennsylvania	11,319,366	11,800,766	11,864,751	11,881,643	12,281,054	399,411	3.4
<i>Surrounding Municipalities</i>							
Bushkill Township	2,676	3,387	4,469	5,512	6,982	1,470	26.7
Forks Township	3,249	3,748	4,612	5,923	8,419	2,496	42.1
Hamilton Township	2,405	2,985	5,138	6,681	8,235	1,554	23.3
Lower Mt. Bethel Township	2,307	2,531	2,745	3,187	3,228	41	1.3
Ross Township	808	998	2,267	3,696	5,435	1,739	47.1
Stockertown	777	753	661	641	687	46	7.2
Upper Nazareth Township	2,661	3,605	3,407	3,413	4,426	1,013	29.7

Source: U.S. Census

Total population in the Pen Argyl—Plainfield—Wind Gap area is expected to grow at a much faster rate than the Lehigh Valley as a whole, with virtually all of the growth occurring in Plainfield Township (Table 1.2). According to forecasts from the Lehigh Valley Planning Commission, population in Plainfield Township may grow by more than 20 percent by 2010.

**Table 1.2
Population Forecasts, 2010–2030**

Location	2000 Population	Forecasted Population			Change			
		2010	2020	2030	2000-2010		2010-2030	
					Number	Percent	Number	Percent
Pen Argyl	3,615	3,647	3,685	3,729	32	0.9	114	3.2
Plainfield	5,668	6,866	8,008	9,002	1,198	21.1	3,334	58.8
Wind Gap	2,812	2,812	2,812	2,812	0	0.0	0	0.0
Region Total	12,095	13,325	14,505	15,543	1,230	10.2	3,448	28.5
Northampton County	267,066	290,919	316,052	341,518	23,853	8.9	74,452	27.9
Lehigh County	312,090	329,552	347,286	362,460	17,462	5.6	50,370	16.1
Lehigh Valley Total	579,156	620,471	663,338	703,978	41,315	7.1	124,822	21.6

Sources: 2000 U. S. Census
2010–2030 Lehigh Valley Planning Commission

The boroughs are more densely developed and have much greater concentrations of population than Plainfield Township (Table 1.3). The amount of land in Pennsylvania municipalities can only change through the annexation process, so land areas in Pen Argyl, Plainfield Township, and Wind Gap are not likely to change in the foreseeable future. Therefore, changes in population result in corresponding changes in population density.

The Pen Argyl—Plainfield—Wind Gap area is surrounded by eight municipalities. Six of the eight are in Northampton County, and two (Hamilton and Ross Townships) are in Monroe County. Several municipal population changes around the Pen Argyl—Plainfield—Wind Gap area are notable:

- Northampton County townships to the south experienced a much higher growth rate during the 1990s than Plainfield Township. One of the factors contributing to the faster growth was immigration from New Jersey, and the townships to the south are much closer to the main arteries connecting the Lehigh Valley to New Jersey: U. S. 22 and I-78.
- Bushkill Township’s growth rate was significantly higher than the rate for Plainfield and Lower Mount Bethel Townships. The relatively small increases in Plainfield and Lower Mount Bethel may be attributable, in part, to successful farmland preservation efforts.

**Table 1.3
Population Density**

Location	Area (sq. mi.)	1990		2000		Change in Pop. Density, 1990- 2000 (persons)
		Population	Pop./Sq. Mi.	Population	Pop./Sq. Mi.	
Pen Argyl	1.34	3,492	2,606	3,615	2,698	92
Plainfield	24.38	5,444	223	5,668	232	9
Wind Gap	1.43	2,741	1,917	2,812	1,966	50
Region Total	27.15	11,677	430	12,095	445	15
Northampton County	379.75	247,105	651	267,066	703	53
Lehigh County	348.90	291,130	834	312,090	894	60
Lehigh Valley Total	728.65	538,235	739	579,156	795	56

Source: U. S. Census

- Similarly, Monroe County townships to the north are closer to I-80 and experienced tremendous in-migration from New York and New Jersey.
- Boroughs grew much slower than townships because of limited land available for development.

Information about the age of residents is important because many community services, such as recreation, senior center programs, and volunteer efforts, focus on specific populations based on age. In general, Plainfield and Wind Gap have older populations than the county and state, as evidenced by the median age of the population (Table 1.4). Conversely, Pen Argyl has a younger population. Pen Argyl has a higher percentage of youth (age 5-19) and a lower percentage of seniors (age 65+) than either of the other regional municipalities, the county, or the state. The population of both Wind Gap and Plainfield Township is slightly older than the total population of the county and the state.

The term “household” refers to all persons living in a housing unit, whether related or not. Average household size is another indicator of population changes. According to the 2000 census, Wind Gap Borough had the smallest household size in the region, with an average of 2.25 people per household (Table 1.5). In comparison, Plainfield Township had an average of 2.62 people per household in 2000.

Consistent with trends throughout the nation, household size decreased during the 1990s in every municipality of the region and surrounding area with one exception: household size increased by 1.8 percent in Forks Township. Wind Gap had the largest drop in household size of the three regional municipalities.

**Table 1.4
Age Distribution, 2000**

	PEN ARGYL		PLAINFIELD TOWNSHIP		WIND GAP		NORTHAMPTON COUNTY		PENNSYLVANIA	
	#	%	#	%	#	%	#	%	#	%
Under 5	217	6.0	240	4.2	172	6.1	14,862	5.6	727,804	5.9
5-19	833	23.1	1,127	19.8	461	16.3	55,857	20.9	2,542,780	20.7
20-24	164	4.5	241	4.3	165	5.9	16,213	6.1	746,086	6.1
25-44	1,120	30.9	1,534	27.0	833	29.6	75,662	28.3	3,508,562	28.6
45-54	462	12.8	953	16.8	390	13.9	38,039	14.2	1,705,032	13.9
55-64	269	7.5	624	11.0	250	8.9	24,403	9.2	1,131,625	9.2
65+	550	15.2	949	16.7	541	19.2	42,030	15.8	1,919,165	15.6
TOTAL	3,615	100.0	5,668	100.0	2,812	100.0	267,066	100.0	12,281,054	100.0
MEDIAN	36.1		42.1		39.3		38.5		38.0	

Source: U.S. Census

**Table 1.5
Household Size, 1990-2000**

AREA	PERSONS PER HOUSEHOLD		CHANGE, 1990-2000	
	1990	2000	#	%
Pen Argyl Borough	2.54	2.52	-0.02	-0.8
Plainfield Township	2.78	2.62	-0.16	-5.8
Wind Gap Borough	2.50	2.25	-0.25	-10.0
Bushkill Township	3.03	2.99	-0.04	-1.3
Forks Township	2.71	2.76	0.05	1.8
Hamilton Township	2.94	2.64	-0.30	-10.2
Lower Mt. Bethel Township	2.81	2.63	-0.18	-6.4
Ross Township	2.95	2.87	-0.08	-2.7
Stockertown Borough	2.62	2.46	-0.16	-6.1
Upper Nazareth Township	3.39	2.73	-0.66	-19.5
Washington Township	2.63	2.52	-0.11	-4.2
Northampton County	2.72	2.53	-0.19	-7.0
Pennsylvania	2.64	2.48	-0.16	-6.1

Source: U.S. Census

HOUSING

The composition of housing stock is a major factor in creating a community’s unique character. Several observations are relevant regarding the housing stock in 1990 and 2000 (Table 1.6) In general, Pen Argyl and Wind Gap have much more diversified housing stocks than Plainfield Township, as noted in the following observations:

**Table 1.6
Housing Type, 1990 and 2000**

	PEN ARGYL				PLAINFIELD				WIND GAP				REGIONAL TOTAL				NORTHAMPTON COUNTY			
	1990		2000		1990		2000		1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Single-Family Detached	639	44	747	50	1,636	80	1,803	82	569	49	601	46	2,844	61	3,151	63	53,715	56	62,018	58
Single-Family Attached	484	34	481	32	94	5	94	4	109	9	168	13	687	15	743	15	18,964	20	20,866	20
Units in 2-4 Unit Structures	206	14	198	13	131	6	164	8	122	10	164	13	459	10	526	10	10,138	11	10,824	10
Units in 5+ Unit Structures	80	6	80	5	8	0	8	0	286	25	289	22	374	8	377	8	7,964	8	9,579	9
Mobile Homes	29	2	0	0	182	9	122	6	78	7	72	6	289	6	194	4	4,564	5	3,423	3
TOTAL	1,438	100	1,506	100	2,051	100	2,191	100	1,164	100	1,294	100	4,653	100	4,991	100	95,345	100	106,710	100

Source: U.S. Census

- The total housing stock increased in all three municipalities and in Northampton County between 1990 and 2000.
- Most of the housing stock in all three municipalities and the county is single-family dwellings.
- Plainfield Township has a larger share of its housing stock in single-family detached units than either Pen Argyl or Wind Gap. The largest percent change in the township’s housing stock during the 1990s was a decrease in mobile homes.
- Pen Argyl has a larger share of its housing stock in single-family attached units than either Plainfield or Wind Gap. The largest percent change in the borough’s housing stock during the 1990s was an increase in single-family detached dwellings.
- Wind Gap has a larger share of its housing stock in buildings with 5 or more units (apartments) than either Pen Argyl or Plainfield. The largest percent change in the borough’s housing stock during the 1990s was an increase in single-family attached dwellings.

Home ownership and vacancy are two important measures of the quality of a community’s housing stock. Owners have a larger stake in caring for property than renters, so a large proportion of owner-

occupied housing is desirable. Vacancy is needed to offer choice within the housing market, but high vacancy rates indicate that local housing may not be desirable on the open market.

Plainfield Township has the highest share of owner-occupancy in the region (Table 1.7). Typically, housing stock in townships tends to have a higher share of ownership than in small boroughs because public services available in boroughs and other more densely developed areas, such as central water and sewer service, can accommodate a higher density of housing, including apartments, which are typically rental units. Therefore, as expected, Pen Argyl and Wind Gap have a higher share of rental properties.

**Table 1.7
Housing Tenure and Vacancy, 1990–2000**

	PEN ARGYL				PLAINFIELD				WIND GAP				NORTHAMPTON COUNTY			
	1990		2000		1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Owner-Occupied	936	68	953	67	1,679	86	1,823	86	622	57	681	56	66,907	74	74,464	73
Renter-Occupied	441	32	474	33	279	14	307	14	475	43	540	44	24,048	26	27,077	27
Total Occupied	1,377	100	1,427	100	1,958	100	2,130	100	1,097	100	1,221	100	90,955	100	101,541	100
Vacant Units	61		79		93		61		67		73		4,390		5,169	
Owner Vacancy	4.2 %		2.1 %		4.5 %		0.7 %		5.8 %		2.0 %		4.6 %		1.5 %	
Renter Vacancy			5.4 %				2.8 %				5.6 %				6.0 %	

Source: U.S. Census, URDC

Vacancy rates were also higher in the boroughs than in Plainfield Township, which is also to be expected. People move from rental properties more frequently than from owned properties. Therefore, a higher proportion of rental units are vacant at any point in time.

In general, the tenure of the housing stock did not change significantly during the 1990s. Ownership dropped by one percentage point (and, therefore, rentals increased by one percent) in both boroughs and the county. The owner/renter shares of housing in Plainfield Township remained constant.

Age is another measure of housing stock. New housing construction is a sign of economic health. Pen Argyl and Wind Gap have older housing stock than Plainfield Township (Table 1.8). Pen Argyl has the oldest housing stock, with more than half of the borough's homes constructed before 1940. Again, the finding is not surprising. Boroughs, as activity centers and the focus of public services, were developed before the rural areas in the townships.

Housing value is another measure of the area's housing stock. According to the 2000 census (Table 1.9), Plainfield Township had the highest median housing value in the regional planning area (\$135,100), but Wind Gap housing value increased by the greatest amount during the 1990s

**Table 1.8
Age of Housing Stock, 2000**

Year Built	Pen Argyl	Plainfield	Wind Gap	Region Total	Northampton County
1999 to 3/2000	0	23	23	46	1,793
1995 to 1998	7	164	62	233	5,223
1990 to 1994	22	212	44	278	6,927
1980 to 1989	79	294	73	446	12,664
1970 to 1979	47	347	301	695	13,165
1960 to 1969	92	220	209	521	11,246
1940 to 1959	328	296	263	887	21,338
1939 or earlier	931	635	319	1,885	34,354
Total	1,506	2,191	1,294	4,991	106,710
Median date of construction	1931	1966	1945	1953	1956

Sources: U. S. Census, URDC

**Table 1.9
Housing Value, 1990–2000**

AREA	MEDIAN VALUE OF OWNER-OCCUPIED HOUSING		CHANGE, 1990–2000	
	1990	2000	NUMBER	PERCENT
Pen Argyl Borough	\$81,000	\$88,900	\$7,900	9.8
Plainfield Township	\$116,800	\$135,100	\$18,300	15.7
Wind Gap Borough	\$92,800	\$114,800	\$22,000	23.7
Bushkill Township	\$131,500	\$148,800	\$17,300	13.2
Forks Township	\$137,200	\$156,000	\$18,800	13.7
Hamilton Township	\$126,400	\$139,600	\$13,200	10.4
Lower Mt. Bethel Township	\$119,600	\$138,800	\$19,200	16.1
Ross Township	\$121,300	\$133,700	\$12,400	10.2
Stockertown Borough	\$99,500	\$118,000	\$18,500	18.6
Upper Nazareth Township	\$108,200	\$136,900	\$28,700	26.5
Washington Township	\$109,700	\$128,000	\$18,300	16.7
Northampton County	\$104,900	\$120,000	\$15,100	14.4
Pennsylvania	\$69,100	\$97,000	\$27,900	40.4

Source: U.S. Census

(\$22,000). In general, housing values in the region are lower than in the surrounding municipalities and elsewhere in the county. Plainfield and Wind Gap housing values exceed those of the state as a whole.

Housing Growth

The housing stock in the Pen Argyl—Plainfield—Wind Gap area has continued to grow since the 2000 census. One measure of housing growth is data on building permits issued annually by each municipality. Plainfield Township has had the largest amount of building activity in the region for the past three years (Table 1.10). Using the average household size from the 2000 census, the housing growth in the past three years represents an estimated population increase of 314 persons (Table 1.11).

**Table 1.10
Building Permits, 2000–2002**

Municipality	Residential Permits ¹			Nonresidential Permits			Total Permits, 2000–2002	
	2000	2001	2002	2000	2001	2002	Residential	Nonresidential
Pen Argyl	7	7	6	2	0	0	20	2
Plainfield Township	24	32	36	6	5	1	92	12
Wind Gap	4	3	3	0	0	0	10	0

¹ All residential permits were for one, single-family dwelling. Therefore, the number of permits equals the number of dwelling units.

Source: Pen Argyl, Plainfield Township, Wind Gap municipal records

**Table 1.11
Estimated Population Change from New Development, 2000–2002**

Municipality	2000 Census		New Dwelling Units, 2000–2002	Population from New Units	2002 Estimate	
	Total Population	Persons per Household			Total Population ¹	Percent Change, 2000–2002
Pen Argyl	3,615	2.52	20	50	3,665	1.4
Plainfield Township	5,668	2.62	92	241	5,909	4.3
Wind Gap	2,812	2.25	10	23	2,835	0.8
Region Total	12,095	—	122	314	12,409	2.6

¹ Estimated 2002 population in Table 1.11 does not account for changes due to cohort survival rates (births/deaths) or out-migration. Additional population in new units assumes in-migration only (i.e., all units are filled by households moving into the Pen Argyl—Plainfield—Wind Gap area).

Sources: U.S. Census
Municipal records
URDC

Growth pressure is also indicated by the number of subdivisions and land developments which have been proposed or have been approved but not yet built (Table 1.12). Of the three municipalities in the region, Plainfield Township has the largest number of lots approved and proposed for development as of May 2003.

**Table 1.12
Subdivision and Land Development Activity, May 2003**

Municipality	Approved	Pending
Pen Argyl	<ul style="list-style-type: none"> • residential (Mary’s Mountain Estate, 1 project, 23 lots) 	<ul style="list-style-type: none"> • Mutchler subdivision • Kocher subdivision
Plainfield	<ul style="list-style-type: none"> • residential (2 projects, 17 lots) • retail/wholesale (1 project, 1 lot) • self-storage (2 projects, 2 lots) 	<ul style="list-style-type: none"> • commercial (3 projects, 4 lots) • industrial park (1 project) • residential (6 projects, 45 lots)
Wind Gap	<ul style="list-style-type: none"> • office (1 project, 1 lot) • public park (1 project, 1 lot) • residential (1 project, 1 lot) 	<ul style="list-style-type: none"> • commercial (3 projects, 4 lots) • residential (3 projects, 14 lots)

Sources: Pen Argyl, Plainfield, Wind Gap

Another measure of subdivision activity is the number of lots, both proposed and approved. Wind Gap had the highest number of proposed lots in 2001 and 2002, but Plainfield had the greatest number of approved lots (Table 1.13). Subdivision activity generally decreased from 2001 to 2002.

**Table 1.13
Proposed and Approved Lots, 2001–2002**

	Proposed Lots			Approved Lots		
	2002	2001	Change	2002	2001	Change
Pen Argyl	4	14	-10	1	13	-12
Plainfield	42	45	-3	32	29	3
Wind Gap	69	93	-24	1	15	-14

Source: Lehigh Valley Planning Commission

One issue regarding housing growth which plans should address is the availability of land for the housing necessary to accommodate future population. An assessment of land use needs conducted as part of the Pen Argyl—Plainfield—Wind Gap planning process concluded that:

- Household size would continue to decline.
- The vast majority of the region’s housing growth in the foreseeable future will occur in Plainfield Township (Table 1.14).

The land use and housing components of the comprehensive plan will address land availability and location of proposed new housing.

**Table 1.14
Housing Growth Needs**

	By 2010		2010–2020	
	Persons per Household	Additional Housing Units Needed	Persons per Household	Additional Housing Units Needed
Pen Argyl	2.50	20	2.48	29
Plainfield	2.59	480	2.56	481
Wind Gap	2.23	9	2.20	18

Sources: URDC, LVPC

Housing Condition

The housing stock in the boroughs of Pen Argyl and Wind Gap is much older than the housing stock in Plainfield Township (Table 1.8). Nevertheless, pockets of substandard housing are found in all three municipalities. Substandard housing conditions, particularly when household income is considered, are a strong indication of the need for housing rehabilitation programs. Field views indicate that the following locations are examples of areas with concentrations of dwellings that may be candidates for a housing rehabilitation program:

- | <i>Pen Argyl</i> | <i>Plainfield Township</i> | <i>Wind Gap</i> |
|--|---|--|
| <ul style="list-style-type: none"> • south of Pennsylvania Ave. • Railroad St./Broad St. “peninsula” | <ul style="list-style-type: none"> • Belfast area • area west of Pen Argyl • West Bangor area • West Pen Argyl area | <ul style="list-style-type: none"> • Broadway • west of Broadway, between Center and West Sts. • 8th St. |

ECONOMICS

Data from the census and other sources are also used to describe the local economy. Comparisons to county and state information illustrate strong or weak characteristics.

The livelihood of local residents reflects individual training and the opportunities which local employers offer. The Pen Argyl—Plainfield—Wind Gap region has a high proportion of residents in occupations related to construction, extraction, maintenance, production, transportation, and material moving (Table 1.15). A low proportion of regional residents have management and professional occupations.

**Table 1.15
Occupation, 2000**

Occupation	Percent of Total Employed, Age 16 and Over				
	Pen Argyl	Plainfield	Wind Gap	Northampton County	Pennsylvania
Management, professional, and related	23.9	27.5	20.5	31.4	32.6
Service	16.0	13.5	14.4	14.0	14.8
Sales and office	25.3	23.6	18.9	27.0	27.0
Farming, fishing, forestry	0.3	0.0	0.0	0.2	0.5
Construction, extraction, maintenance	12.2	12.0	11.9	9.2	8.9
Production, transportation, material moving	22.3	23.5	34.3	18.1	16.3
Total	100.0	100.0	100.0	100.0	100.0

Source: U. S. Census

The industry in which residents perform their occupations is another indication of the local economy. Industry employment is closely related to the location of employers, particularly employers who rely on natural resources specific to a geographic area. The region is strong in the construction, manufacturing, and wholesale industries (Table 1.16).

Industry shares for individual municipalities often reflect the location of specific major employers. For instance, Plainfield Township has the highest share among the three regional municipalities in the industry category which includes waste management, which is easily explained by the fact that the township contains a major landfill operation.

Occupation and industry characteristics relate closely to statistics on income, two of which are median household income (the annual income for an entire household which represents the “middle” value for all households) and per capita income (average annual income per person). According to the 2000 census, Plainfield Township has the highest median household income in the region, while Wind Gap has the lowest median household income (Table 1.17). The disparity between the three municipalities grew during the 1990s because Wind Gap’s household income increased the least of the three between censuses.

**Table 1.16
Industry, 2000**

Industry	Percent of Total Employed, Age 16 and Over				
	Pen Argyl	Plainfield	Wind Gap	Northampton County	Pennsylvania
Agriculture, forestry, fishing/hunting, mining	1.3	1.9	1.2	0.6	1.3
Construction	7.3	8.7	6.8	6.1	6.0
Manufacturing	25.9	24.9	28.9	20.7	16.0
Wholesale trade	4.6	4.5	2.1	3.4	3.6
Retail trade	13.6	11.1	11.0	11.4	12.1
Transportation/warehousing, utilities	3.6	5.6	4.4	5.4	5.4
Information	2.5	2.5	2.9	3.1	2.6
Finance, insurance, real estate, renting/leasing	2.3	4.1	5.9	5.6	6.6
Professional, scientific, management, administrative, waste management	5.2	7.8	5.8	7.8	8.5
Educational, health, social services	19.3	16.9	18.0	22.4	21.9
Arts, entertainment, recreation, accommodation, food services	6.4	5.1	5.6	6.0	7.0
Other services (except public administration)	6.2	3.8	4.7	4.4	4.8
Public administration	1.9	3.2	2.8	3.0	4.2
Total	100.0	100.0	100.0	100.0	100.0

Source: U. S. Census

**Table 1.17
Income, 1990–2000**

Area	Median Household Income				Per Capita Income			
	Amount		Change, 1990–2000		Amount		Change, 1990–2000	
	1990	2000	Dollars	Percent	1990	2000	Dollars	Percent
Pen Argyl Borough	\$29,458	\$40,066	\$10,608	36.0	\$13,088	\$18,145	\$5,057	38.6
Plainfield Township	\$33,383	\$49,019	\$15,636	46.8	\$13,136	\$20,639	\$7,503	57.1
Wind Gap Borough	\$28,393	\$35,030	\$6,637	23.4	\$13,169	\$21,239	\$8,070	61.3
Northampton County	\$32,890	\$45,234	\$12,344	37.5	\$14,562	\$21,399	\$6,837	47.0
Pennsylvania	\$29,069	\$40,106	\$11,037	38.0	\$14,068	\$20,880	\$6,812	48.4

Source: U. S. Census

Interestingly, Wind Gap has the highest per capita income in the region, in part because the borough has the smallest population (which is the denominator in the per capita calculation). Wind Gap’s per capita income also grew faster during the 1990s than that of either Plainfield or Pen Argyl.

In addition to census data, a look at the largest employers in an area also provides some insight into the characteristics of the local economy. Data on work force (number of employees by employer) is often difficult to obtain because many employers treat the information in strictest confidence. Some data services offer voluntary programs to report employment for analysis purposes, one of the best known of which is the *Harris Industrial Directory*. Participation in the Harris program is entirely voluntary, and the survey does not cover several large economic sectors, such as retail, government, and services.

According to the 2002 Harris survey, several large employers (25 or more employees) in the Pen Argyl-Plainfield-Wind Gap area are in the textile industry, particularly women’s clothing (Table 1.18). The Grand Central landfill is also among the area’s major employers.

**Table 1.18
Major Employers, 2002**

Name	Municipality	Employees ¹	Products/Services
Grand Central Sanitation	Plainfield	285	Waste Services and Landfill
NAPA Development Corp.	Plainfield	65	Development and Construction
GAF Premium Products	Wind Gap	32	Siding
Williams & Sons Slate & Tile	Plainfield	27	Stone Products, Slate Roofing, Tile
A & H Sportswear Co., Inc.	Pen Argyl	180	Women’s/Children’s Bathing Suits
Cali Sportswear, Inc.	Pen Argyl	70	Women’s Sportswear, Blouses, Slacks
MC 2	Pen Argyl	50	Trade Show Equipment
Scotty’s Fashions Cutting, Inc.	Pen Argyl	505 ²	Women’s Skirts, Slacks, Blouses, Jackets
Dally Slate Co.	Pen Argyl	55	Roofing Slates, Insulates, Panels, Partitions
Fashions By Danielle, Inc.	Pen Argyl	50	Fabric Cutting
Speck Plastics, Inc.	Plainfield	42	Thermoformed Plastic Gaskets, Fabrication
American Candle	Wind Gap	30	Candles

¹ The definition of “employee” is not uniform. Participation in the Harris Industrial Directory is entirely voluntary. The Harris form asks for “approximate number of employees at this location.” Therefore, respondents may, at their discretion, provide the number of full-time employees, total employees (full-time plus part-time), or “full-time equivalents,” which would include each part-time employee accounting for some fraction of a full-time employee.

² Company-wide total employment. Company has more than one location.

Source: 2002 Harris Industrial Directory

Economic Development Opportunities

Economic development opportunities in the Pen Argyl—Plainfield—Wind Gap area have been identified and discussed in several reports. Opportunities are also found in several subject areas, such as tourism.

ECONOMIC DEVELOPMENT STUDIES

The PA 33/512 corridor, which passes through Wind Gap, Plainfield Township, and Pen Argyl, offers a variety of opportunities for economic development, many of which were identified in the study entitled, *A Strategy for Economic Enhancement of the Route 33 and 512 Corridor*.² PA 33 connects the corridor to Interstates 78 and 80. In addition to the advantages as a regional and national vehicular transportation route, the corridor's proximity is attractive to many companies that find Pennsylvania's overall cost of doing business much lower than in neighboring New Jersey. The PA 33/512 corridor also has areas of greenfield land currently zoned for industrial types of use, available lots in existing business parks, plans for additional business park development, vacant and underutilized older industrial sites, and expanding commercial development activity.

Clearly, the corridor can take advantage of business relocation trends emanating from the New York/New Jersey metropolitan area. In addition, the Greater Philadelphia/South Jersey/Delaware region can also be viewed as a source of recruitment candidates, particularly for firms in the biomedical industry. Despite the reluctance from many development specialists and planners to except "big boxes" as good development, the region remains a very attractive location for large warehousing and distribution facilities, particularly for those companies serving the Middle Atlantic States and the Northeast United States. From a more local perspective, "Main Street"-type improvement programs in the corridor's boroughs and villages in conjunction with the aggressive promotion of recreational and heritage tourism represent a clear untapped economic opportunity.

The *Strategy for Economic Enhancement of the Route 33 and 512 Corridor* delineated four segments, one of which includes the Pen Argyl—Plainfield—Wind Gap area. Segment #2 is the area stretching from a point between the boroughs of Pen Argyl and Bangor, through Pen Argyl and Wind Gap, to an area just west of PA 33. Segment #2 includes portions of the Pen Argyl Area and Nazareth Area School Districts. Segment #2 was delineated using several factors:

- The Pen Argyl Area School District's eastern boundary, where the school district is in need of tax ratables)
- Similar mixed-use, higher-density land use patterns
- Heavy dependence on PA 512 as the only primary vehicular east-west route
- Reasonable proximity and vehicular access to PA 33 (as opposed to I-80)
- Heavy dependence on the PA 33/512 interchange to facilitate north-south vehicular travel

² URDC, March 2003, funded by the Two Rivers Area Chamber of Commerce, Northampton County Department of Economic Development, and Lehigh Valley Economic Development Corporation

Within Segment 2, the identified priority development node includes:

- The extended area at the PA 33/512 interchange at Wind Gap that includes the industrial and commercial zoned land around the interchange.
- The light industrial zoned land along Route 512 between Wind Gap and Pen Argyl.
- Scattered underutilized and vacant industrial/commercial properties in Wind Gap.

The Segment #2 node benefits from the advantages of:

- The existing PA 33/512 interchange providing convenient access to both I-78 and I-80.
- A large tract of industrial zoned land just west of PA 33 served by the interchange.
- PA 512, the primary road that traverses the Slate Belt feeding into the interchange.
- The existing activities and development assets associated with the Slate Belt Industrial Park project and the Slate Belt Industrial Center project.
- The proposed Industrial Road project (and possible future extension).
- The scattered site development potential within Wind Gap, conveniently located along PA 512 in reasonable proximity to PA 33.

The *Strategy* identified the following types of recruitment opportunities for Segment 2:

- Biomedical
- Industrial and Light Manufacturing Operations
- Local Distribution Services
- Warehouse/Distribution
- Food Processing
- Small Technology-oriented Enterprises
- Enterprises Comfortable with the Adaptive Reuse of Older Underutilized/Vacant Properties
- Commercial Uses

The *Strategy* also identified the following specific areas and concepts to support and advance economic enhancement for Segment 2:

- Develop land use plans and zoning designed to promote compatible business development.
- Target the PA 33/512 interchange area as a priority area in conjunction with road projects.
- Target the Slate Belt Industrial Park and the Slate Belt Industrial Center for development in conjunction with road projects.
- Target other scattered industrial & commercial areas along PA 512 as priority development sites.
- Explore the possibility of:
 - A new interchange north of the existing Wind Gap interchange to improve vehicular access to existing/new development areas and relieve congestion on PA 512.
 - Extending the planned industrial road (at NAPA) west of Broadway, possibly across PA 33 to serve industrially zoned areas.

- Extend public sewer, water, and natural gas to serve new development areas.
- Promote recreation and tourism in conjunction with enhanced commercial areas in boroughs and villages.
- Develop and implement a marketing and promotional program specific to Segment #2 and recruit targeted industries.
- Develop and implement a business assistance program for existing businesses.
- Explore viable adaptive reuse options for quarries.

UPPER NORTHAMPTON COUNTY ECONOMIC STRATEGY

An earlier study³ made the following observations:

- PA 33 and I-80 provide good highway access to the area.
- PA 512 travel is hampered due to numerous traffic lights between Wind Gap and Mt. Bethel.
- A main rail line crosses upper Northampton County.
- Water providers report no significant limitations to serving new businesses within local service areas.
- Sewer service has less coverage than water service.
- Natural gas service is provided to most of the municipalities in upper Northampton County.

The study also identified and evaluated 10 sites for potential industrial development opportunities. Three of the sites are located the Pen Argyl—Plainfield—Wind Gap area:

- **Site #1: PA 512/33 Site** — a 180-acre site, situated north and west of the existing PA 512/33 interchange, including land in Plainfield Township, Bushkill Township, and Wind Gap Borough. The study stated that the site:
 - Is a prime site for further consideration.
 - Has strong merit for use as a new industrial/office park.
 - Should be given high priority for planning and development.
- **Site #2: PA 512, north side, between Wind Gap and Pen Argyl** (the planned Slate Belt Industrial Park site being developed by NAPER Development Inc.) — a 120-acre former railroad with several industrial buildings. Development plans are underway for an industrial park and new industrial access road. The infrastructure and road are being funded in part by Northampton County Infrastructure Development bond funds.
- **Site #3: PA 512, south side, southwest of Pen Argyl** — 400+ acres in Plainfield Township, including the Grand Central Sanitary Landfill property and areas along Route 512 east of Buss

³ *Economic Development Strategy, Upper Northampton County Area*, URDC, September 1994, prepared for the Slate Belt Area Chamber of Commerce and the Northampton County Development Corporation

Street. The study stated that portions of the area will have potential for small-scale industrial development around the margins of the land fill operation.

NORTHAMPTON COUNTY OVERALL ECONOMIC DEVELOPMENT PROGRAM

The *Northampton County Overall Economic Development Program (OEDP)*⁴ recommended implementing the following projects in the Pen Argyl—Plainfield—Wind Gap area:

- ***Slate Belt Industrial Sites*** - privately-owned sites at the PA 512/33 interchange (238 acres) and the NAPA Industrial Park on Route 512 (96 acres).
 - Responsible Bodies: Private owners of sites, Slate Belt Chamber of Commerce, Northampton County, LVEDC, local municipalities.
 - Estimated Cost: not available

- ***Green Knight Economic Development Corporation Site and Shell Building*** – an 18.5-acre site along PA 512 near the Borough of Pen Argyl. (Note: The site has been developed, and the building has been constructed.)
 - Responsible Bodies: Green Knight Economic Development Corporation, Northampton County IDA.
 - Estimated Cost: not available

ECONOMIC DEVELOPMENT OPPORTUNITIES WITHIN THE EXISTING BUSINESSES

The backbone of any economy still rests with existing businesses, as opposed to new employers. Existing businesses depend on improved physical infrastructure, enhanced market opportunities, general management and workforce training, and lower costs of doing business. An ongoing outreach program targeting existing businesses is an integral part of any economic development strategy. Solid business assistance is provided through grassroots outreach efforts and open forums to create and maintain a dialogue on improving the business climate for existing enterprises.

TOURISM OPPORTUNITIES

Tourism typically is an integral component of an overall economic development strategy. Jacobsburg State Park, the Jacobsburg Environmental Education Center, the Jacobsburg Visitors Center and National Historic District, the Dally Slate Quarry, the Weona Park Carousel, the Slate Belt Heritage Center, the working farms, and other local attractions can be used to enhance tourism.

⁴ Lehigh Valley Planning Commission, November 1999

As a result of a cooperative effort by the Slate Belt Chamber of Commerce, the Nazareth Area Chamber of Commerce, the Northampton Area Chamber of Commerce, Jacobsburg State Park and Environmental Education Center, and various other partners, a tourism promotional brochure has been prepared and a website has been developed (www.pawebtrail.com) which can be used to enhance tourism-related economic development activities in the Pen Argyl—Plainfield—Wind Gap area. Furthermore, natural areas in Rissmiller Woods, the Grand Central Woods, the Jacobsburg Environmental Education Center, and along the Bushkill Creek and its tributaries complement heritage-based tourism with natural scenic areas, walking trails, historic interpretive areas, and recreation opportunities.

EXISTING LAND USE

According to data compiled by the Lehigh Valley Planning Commission (LVPC), Pen Argyl, Plainfield Township, and Wind Gap all experienced the same major changes in land use between 1992 and 2000: a decrease in agricultural and vacant land and an increase in residential land (Table 1.19). All three municipalities also experienced slight decreases in industrial acreage.

Residential

Single-family detached homes comprise the bulk of residential units in all three municipalities (Maps 1.2 and 1.3). Pen Argyl and Wind Gap also include single-family attached and multifamily units. Most residences along main roads are in good condition. Newer single-family homes appear near the middle school and along Kesslerville Road in Plainfield Township. More than one in five acres (20.4 percent) of the region's land is residential, which represents a 9.4 percent increase from 1992. Residential land accounts for 56 percent of all developed land in the region.

Commercial

Commercial businesses account for one of the smallest land uses in the region. Businesses present a variety of sizes and shapes on the landscape, including gas stations/convenience stores, auto repair shops, banks, and offices. Some commercial uses are combined with residential uses in the same structure, such as retail/apartment or office/apartment uses more commonly found in the boroughs.

Commercial centers in the Pen Argyl—Plainfield—Wind Gap region include:

- The area around the interchange of PA Routes 512 and 33, which includes many of the area's "fast food" restaurants, K-Mart Plaza, an auto dealership, and other commercial uses.
- PA 512 in the center of Wind Gap.

**Table 1.19
Existing Land Use, 1992–2000**

Land Use	2000		1992		Change 1992-2000	
	Acres	Percent	Acres	Percent	Acres	Percent
Pen Argyl Borough						
Residential	228.5	26.7	214.4	25.0	14.1	6.6
Commercial	11.7	1.4	11.4	1.3	0.3	2.6
Industrial	220.0	25.7	220.1	25.7	(0.1)	0.0
Wholesale & Warehousing	15.9	1.9	15.9	1.9	0.0	0.0
Transportation, Communications & Utilities	151.7	17.7	151.7	17.7	0.0	0.0
Public & Quasi-Public	42.0	4.9	38.5	4.5	3.5	9.1
Parks & Recreation	28.0	3.3	28.0	3.3	0.0	0.0
Agriculture & Vacant	159.2	18.6	177.0	20.7	(17.8)	(10.1)
Subtotal — Pen Argyl	857.0	100.0	857.0	100.0	0.0	0.0
Plainfield Township						
Residential	3,020.4	19.4	2,751.9	17.6	268.5	9.8
Commercial	101.1	0.6	92.6	0.6	8.5	9.2
Industrial	437.3	2.8	438.3	2.8	(1.0)	(0.2)
Wholesale & Warehousing	79.2	0.5	77.6	0.5	1.6	2.1
Transportation, Communications & Utilities	743.6	4.8	718.1	4.6	25.5	3.6
Public & Quasi-Public	129.2	0.8	126.2	0.8	3.0	2.4
Parks & Recreation	539.4	3.5	522.7	3.4	16.7	3.2
Agriculture & Vacant	10,551.8	67.6	10,874.6	69.7	(322.8)	(3.0)
Subtotal — Plainfield	15,602.0	100.0	15,602.0	100.0	0.0	0.0
Wind Gap Borough						
Residential	300.5	32.8	278.0	30.3	22.5	8.1
Commercial	46.6	5.1	25.2	2.8	21.4	84.9
Industrial	78.8	8.6	78.9	8.6	(0.1)	(0.1)
Wholesale & Warehousing	33.0	3.6	33.0	3.6	0.0	0.0
Transportation, Communications & Utilities	142.8	15.6	138.0	15.1	4.8	3.5
Public & Quasi-Public	10.6	1.2	8.8	1.0	1.8	20.5
Parks & Recreation	34.7	3.8	33.9	3.7	0.8	2.4
Agriculture & Vacant	269.0	29.4	320.2	35.0	(51.2)	(16.0)
Subtotal — Wind Gap	916.0	100.0	916.0	100.0	0.0	0.0
Regional Totals						
Residential	3,549.4	20.4	3,244.3	18.7	305.1	9.4
Commercial	159.4	0.9	129.2	0.7	30.2	23.4
Industrial	736.1	4.2	737.3	4.2	(1.2)	(0.2)
Wholesale & Warehousing	128.1	0.7	126.5	0.7	1.6	1.3
Transportation, Communications & Utilities	1,038.1	6.0	1,007.8	5.8	30.3	3.0
Public & Quasi-Public	181.8	1.0	173.5	1.0	8.3	4.8
Parks & Recreation	602.1	3.5	584.6	3.4	17.5	3.0
Agriculture & Vacant	10,980.0	63.2	11,371.8	65.4	(391.8)	(3.4)
Total — Pen Argyl—Plainfield—Wind Gap region	17,375.0	100.0	17,375.0	100.0	0.0	0.0

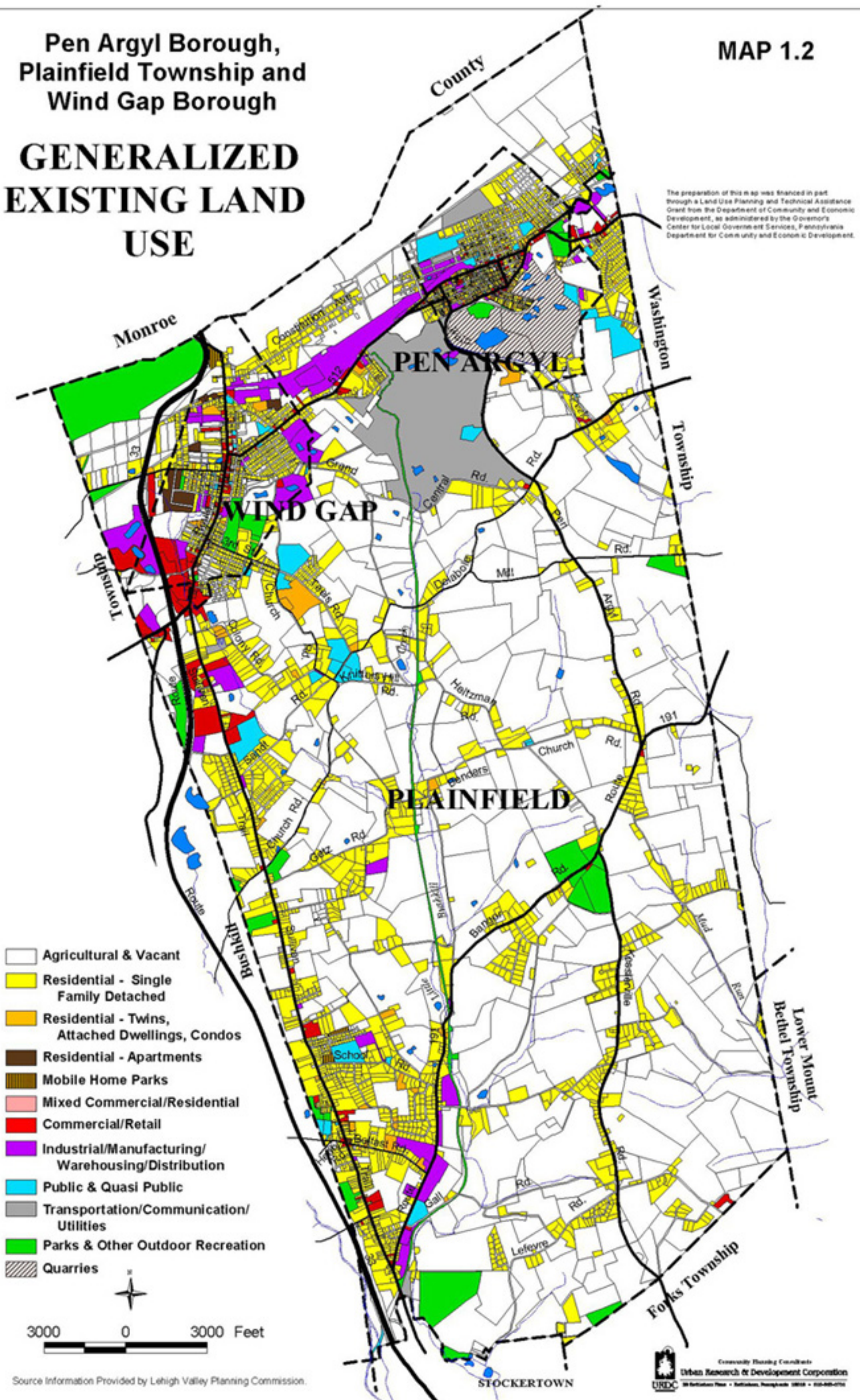
Source: Lehigh Valley Planning Commission

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

MAP 1.2

**GENERALIZED
EXISTING LAND
USE**

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



- Agricultural & Vacant
- Residential - Single Family Detached
- Residential - Twins, Attached Dwellings, Condos
- Residential - Apartments
- Mobile Home Parks
- Mixed Commercial/Residential
- Commercial/Retail
- Industrial/Manufacturing/Warehousing/Distribution
- Public & Quasi Public
- Transportation/Communication/Utilities
- Parks & Other Outdoor Recreation
- Quarries



Source Information Provided by Lehigh Valley Planning Commission.

Community Planning Consultants
Urban Research & Development Corporation
URDC
1000 Northampton Ave. • Bethlehem, Pennsylvania 18018 • 610-866-0750

**Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough**

MAP 1.3

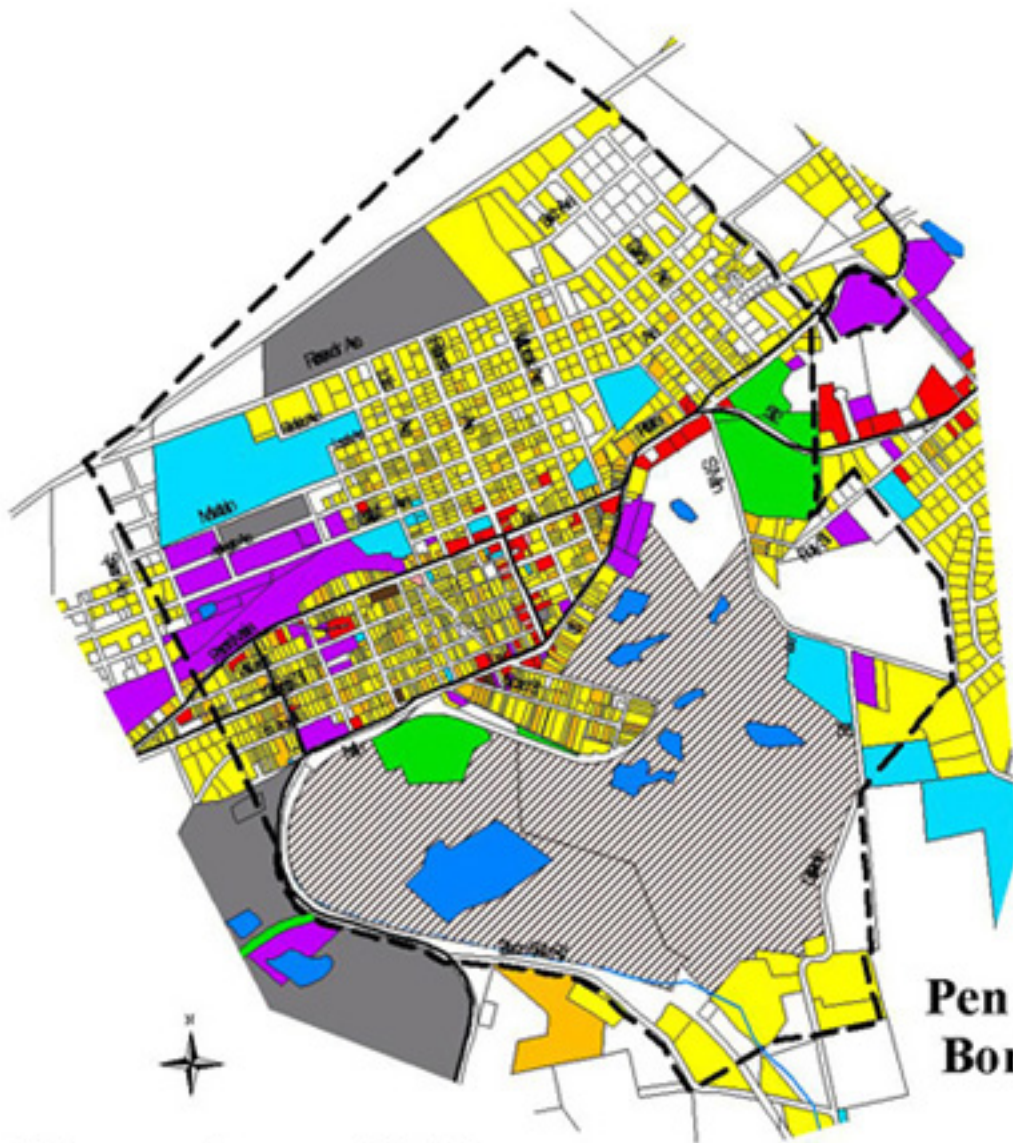
**GENERALIZED
EXISTING LAND
USE**

**Wind
Gap
Borough**



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.

- Agricultural & Vacant
- Residential - Single Family Detached
- Residential - Twins, Attached Dwellings, Condos
- Residential - Apartments
- Mobile Home Parks
- Mixed Commercial/Residential
- Commercial/Retail
- Industrial/Manufacturing/ Warehousing/Distribution
- Public & Quasi Public
- Transportation/Communication/ Utilities
- Parks & Other Outdoor Recreation
- Quarries



**Pen Argyl
Borough**

1500 0 1500 Feet



Community Planning Consultants
Urban Research & Development Corporation
URDC
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- PA 512 in Plainfield Township between Pen Argyl and Washington Township.
- The commercial center of Pen Argyl.

Commercial land accounts for the largest percentage change in the region (23.4 percent) between 1992 and 2000. Commercial land in Wind Gap grew 84.9 percent during the period.

Industrial

Each of the three municipalities in the region lost a small amount of industrial land from 1992 to 2000. The largest concentrations of industrial land are the quarry areas in the southern portion of Pen Argyl and the planned Slate Belt Industrial Park (the NAPA area) along the northern side of PA 512 between Wind Gap and Pen Argyl. The Northampton County Industrial Development Authority provided about 20 acres at the entrance to the Grand Central Landfill for industrial development along the southern side of PA 512 between the boroughs.

Wholesale & Warehousing

Wholesale and warehousing is the smallest category of land use, accounting for only 0.7 percent of the land in the region. Concentrations of warehouses are located:

- Near the intersection of Belfast Road and Route 191 in southern Plainfield Township.
- In the northeastern portion of Wind Gap.
- Along PA Route 512 near the western border of Pen Argyl.

Transportation, Communications, and Utilities (TCU)

Uses classified as TCU are devoted to providing electric power; natural gas; telephone, water, or sewer service; landfills; and roads. The category accounts for 6.0 percent of the region's land and includes the 533-acre Grand Central Landfill in Plainfield Township. The landfill accounts for more than 70 percent of the region's land in the TCU category. In addition, Pennsylvania American Water Company operates a facility on Reservoir Avenue, and the Wind Gap Municipal Authority is located between Sullivan Trail Road and Abel Colony Road.

Public & Quasi-Public

Public uses include educational and governmental uses, such as schools and municipal buildings. Quasi-public uses are often owned by nonprofit organizations, such as churches, fire companies, and

service organizations (excluding recreational areas, which are classified elsewhere). Examples include the Wind Gap Middle School, Pen Argyl Area High School, Plainfield Elementary School, Immaculate Conception School, and the many churches in the area.

Parks & Recreation

A total of 602.1 acres is devoted to parks and recreation uses, including several riding clubs and golf courses. Parks and recreation sites include:

- State game lands along the Blue Mountain.
- The 7-mile Plainfield Township Recreation Trail, which is used for walking, biking, cross-country skiing and fishing.
- Weona Park in Pen Argyl, which is the home of the historic Weona Park Carousel.
- The Brocknell farm.

A complete list of parks and recreation sites in the region can be found in the discussion of community facilities.

Agriculture & Vacant

Almost two-thirds of the region (63.2 percent) is either in agricultural use or vacant. Most of the land in the category is agricultural. The category of agricultural and vacant land usually loses land over time, and Table 1.19 confirms the trend in the Pen Argyl—Plainfield—Wind Gap region between 1992 and 2000. Most of the vacant and agricultural land lost was converted to residential uses.

Plainfield Township has been relatively successful at preserving agricultural land in the township. Nearly all farms are enrolled in Acts 515 and 319, which provide property tax abatement in return for continued farming (Map 1.4). One farm in the township has had a permanent easement place on the property to prevent future development, and several other farms are in the easement process.

NATURAL FEATURES

The focus of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* is land: the characteristics of the land which occur naturally and uses to which the land is put, considering the natural features. Natural features of the land include:

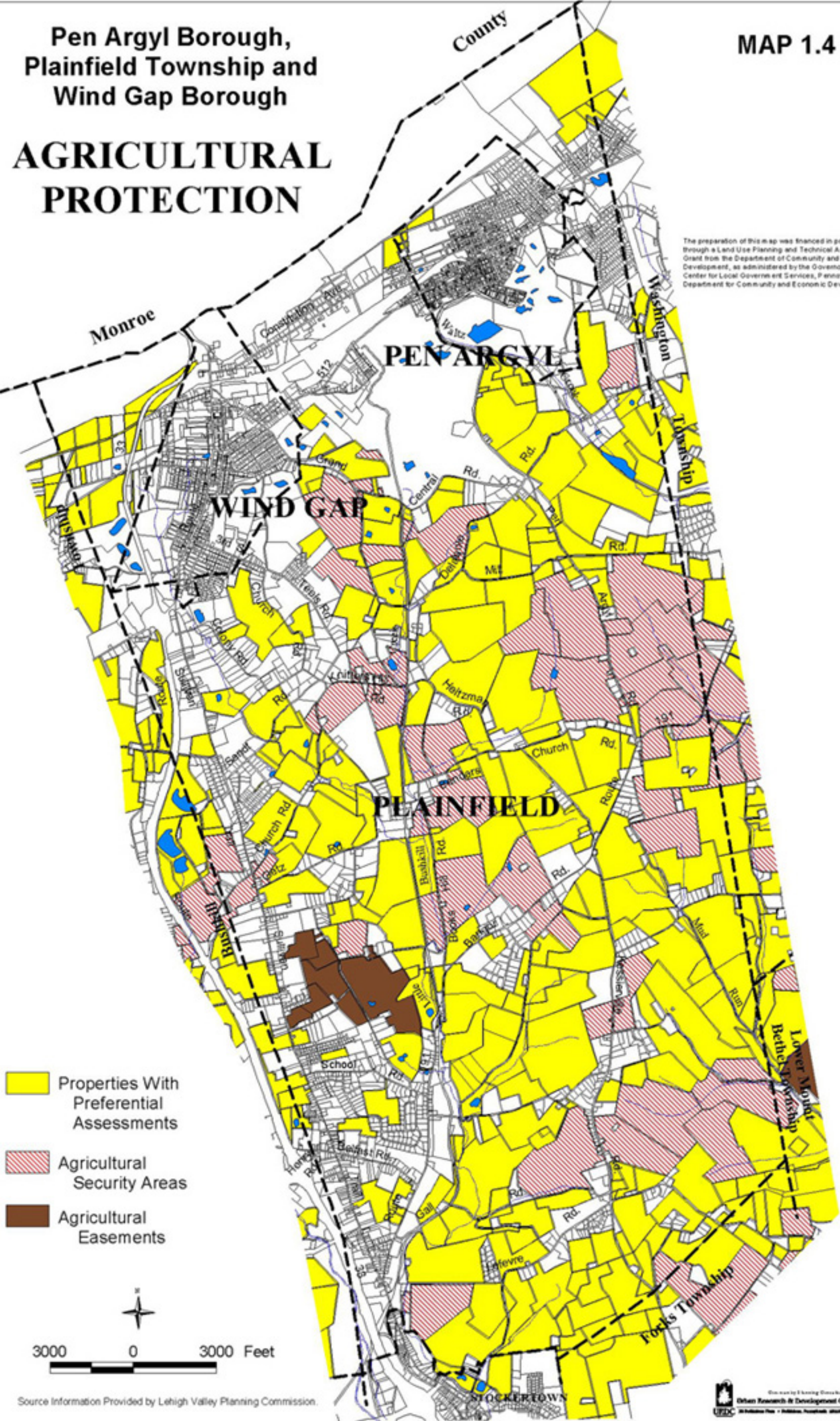
- Geology.
- Topography.
- Woodlands.
- Unique natural areas.
- Hydrology (surface waters, drainage basins, and wetlands).
- Prime agricultural soils.
- Soil suitability for on-lot septic systems.

Pen Argyl Borough, Plainfield Township and Wind Gap Borough

MAP 1.4

AGRICULTURAL PROTECTION

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



Source Information Provided by Lehigh Valley Planning Commission.

Geology

Geology dictates the quantity and quality of groundwater and is an important determinant of soil types. The Pen Argyl-Plainfield-Wind Gap area is underlain by two geological formations: Martinsburg Shale and Shawangunk Conglomerate. The Shawangunk formation is found on the slopes of Blue Mountain and the Martinsburg formation, which underlies most of the area, is found south of Blue Mountain.

The Shawangunk Conglomerate is composed of quartz pebbles firmly cemented together. The conglomerate frequently outcrops on the surface and is seldom more than 36 inches below the surface. The Shawangunk Conglomerate is one of the most resistant formations in the region, which explains Blue Mountain.

The Martinsburg Formation is composed of shale, slate, and sandstone. Water wells at depths of 25 feet or more usually yield small to moderate amounts of water. The water quality is generally good but somewhat hard. Essentially all of the area's agricultural land, slate quarries, and development are underlain by the Martinsburg Formation.

Topography

Topography (Map 1.5) is one of the most obvious environmental features. The Blue Mountain and the Wind Gap are visually prominent throughout most of the area. The lowest elevations (approximately 375 feet above sea level) occur toward the southern extreme of the area where the Little Bushkill Creek and Mud Run cross the Plainfield Township line. From there to the base of the Blue Mountain, elevation increases by about 400 feet. Within the rolling, primarily agricultural area, most areas lie within a range of 500 to 700 feet above sea level. Toward the northern boundary of the area, the Blue Mountain abruptly rises to a crest elevation of about 1,600 feet above sea level.

Most of the area south of Blue Mountain exhibits gentle slopes from 0% to 8%. The largest and most prominent concentration of steep slopes (over 15%) are found on and along Blue Mountain. Other steep slopes are found along creek and stream valleys. Steep slopes are susceptible to erosion when soil and vegetation are disturbed, which can add significantly to the cost of constructing and maintaining roads and buildings. Steep slopes also limit the placement of on-site sewage systems.

Woodlands

Woodlands are wildlife habitats that, if destroyed, take decades to replace. The root systems of trees and other vegetation stabilize the soil against erosion, particularly in steep areas. Woodlands are also a scenic resource that provide visual relief from the built environment.

The largest concentration of woodlands in the region is on Blue Mountain (Map 1.6). Other wooded areas are found along the creeks and streams and at other scattered locations. The importance of protecting woodlands is underscored by the fact that many are located on environmentally sensitive areas, such as steep slopes and floodplains.

Unique Natural Areas

Critical plant and animal habitat areas and outstanding geologic features in the Pen Argyl—Plainfield—Wind Gap area also help to define the area and deserve protection. The following natural areas (Map 1.6) were identified in the *Natural Areas Inventory* report (April 1999) prepared by the Lehigh Valley Planning Commission:

- ***Rismiller Woods*** — The Rismiller Woods site is located within a portion of the large industrial-zoned tract directly west of the PA 33/PA 512 interchange in Bushkill Township. The area includes the headwaters of Sober’s Run, the highest quality tributary within the Bushkill Creek watershed. In addition, the natural area is an excellent breeding habitat for amphibians, and the forested riparian corridor provides a corridor for wildlife movement by connecting the forests at Jacobsburg with the Blue Mountain. The previously-cited *Strategy for Economic Enhancement of the Route 33 and 512 Corridor* states that:

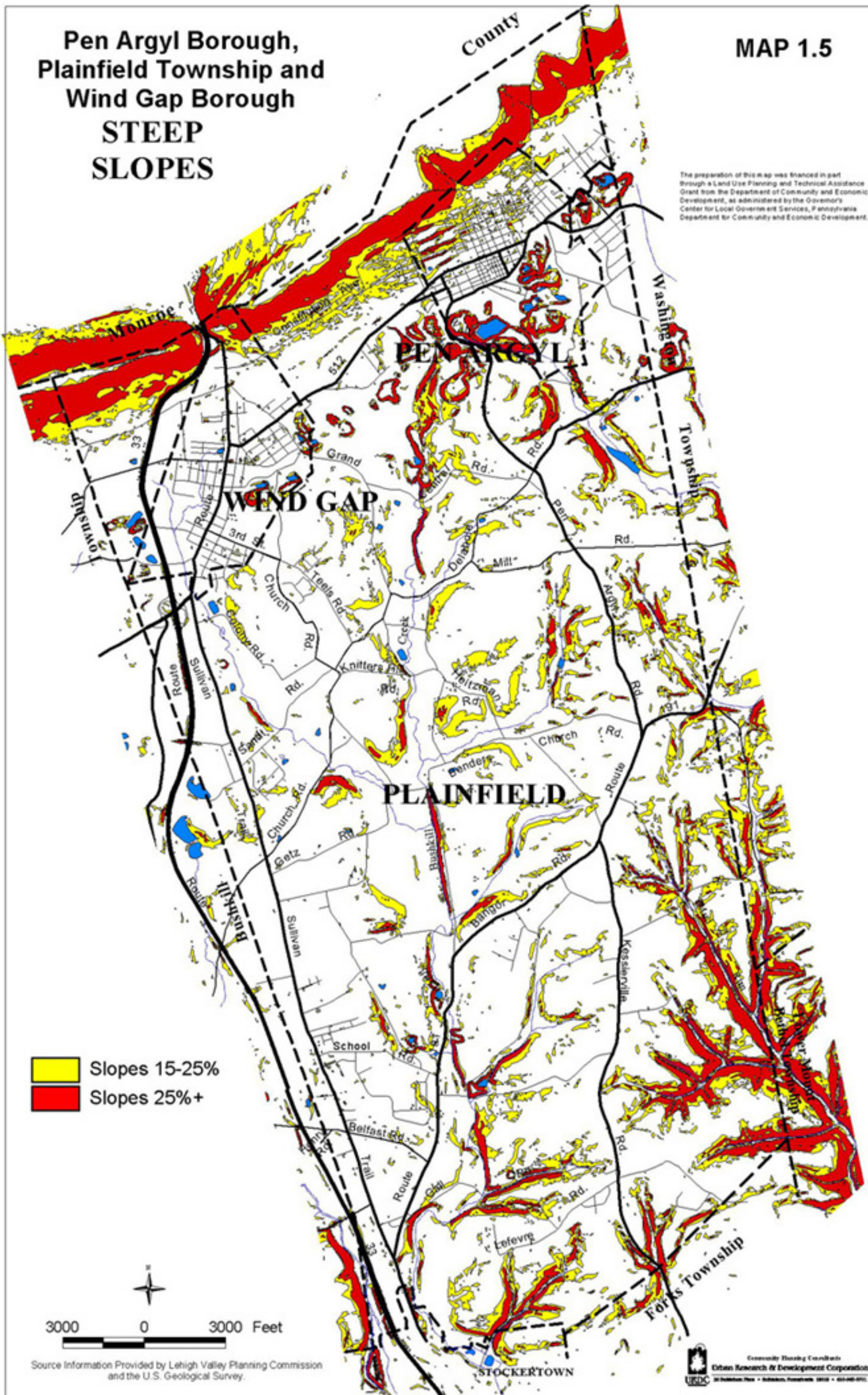
“From a preservation perspective, based on the *Natural Areas Inventory*, the high ranking of the Rismiller Woods site relative to other natural areas indicates that the site should be targeted for protection and/or management of the site and the surrounding lands. From a development perspective, the natural area resides in one of the more attractive areas for development activities. In order to balance development with natural resource protection, the portion of the Rismiller Woods site located within the industrial zoned area, if developed, should be developed with compatible uses, employing quality design standards, natural buffers, and broad spans of separation from delineated streams, pools, ponds, springs and other wetland features. In addition, sewer and water extensions should seek to minimize the impact on this natural area by following existing roadways and other nonintrusive pathways.”

- ***Grand Central Woods*** — Grand Central Woods is a fairly mature, mesic hardwood forest dissected by the headwaters of the Little Bushkill Creek. A section of the former Erie-Lackawanna Railroad rail bed has been converted to the Plainfield Township Recreation Trail which crosses portions of the area. The natural area is zoned for light industrial use. Adjacent to Grand Central Woods to the east is the large Grand Central Sanitary Landfill and two new development enterprises: a bio-gas energy plant and an IDA-financed building. In addition, long rang plans are to remove existing slate piles at the landfill to reclaim more land for development. Despite the level of activity and plans for future development, the light industrial activity is limited to the northeast portion of the area and does not infringe on the natural area. The *Strategy for Economic Enhancement of the Route 33 and 512 Corridor* report states that:

Pen Argyl Borough, Plainfield Township and Wind Gap Borough STEEP SLOPES

MAP 1.5

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



- Slopes 15-25%
- Slopes 25%+



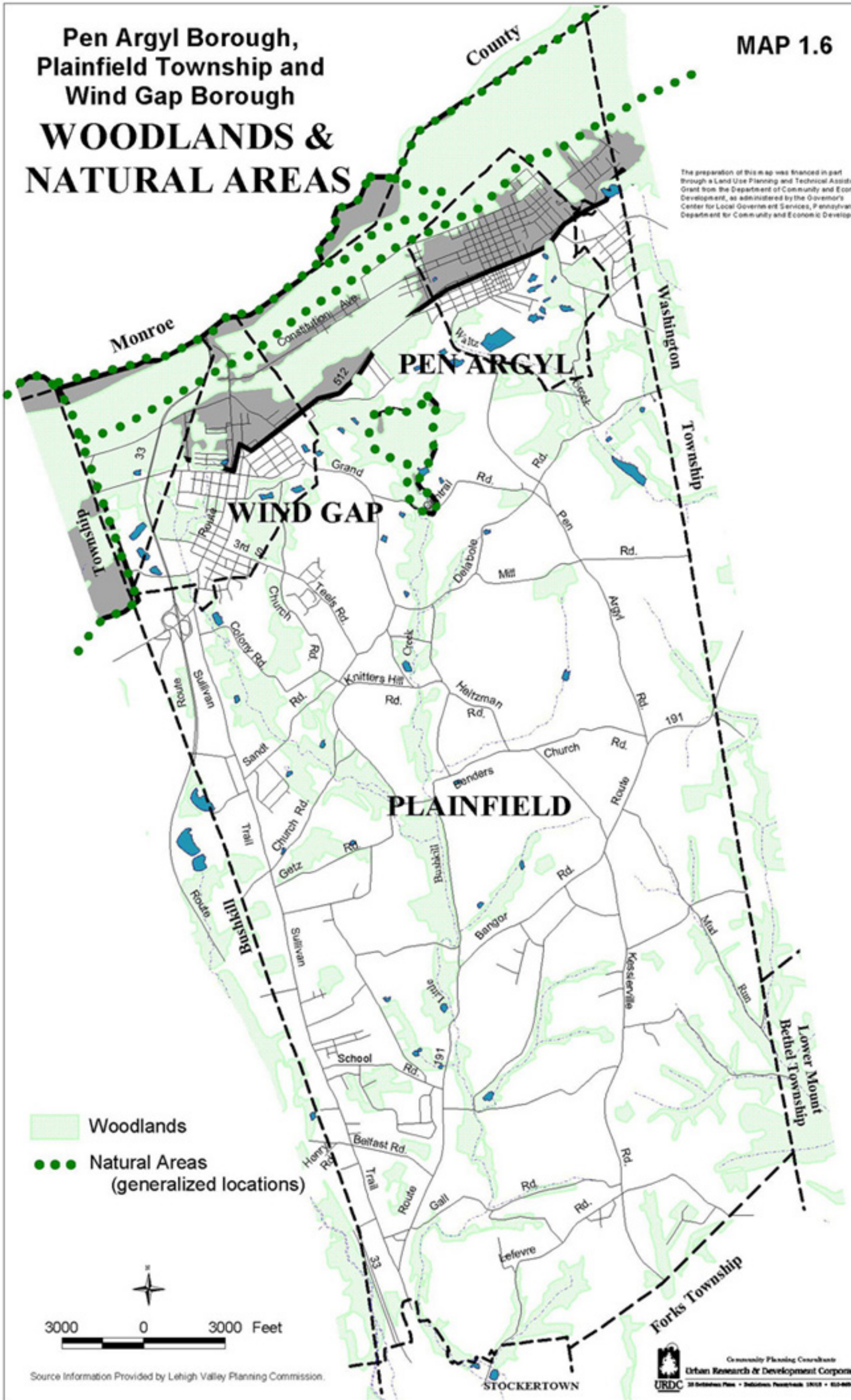
Source Information Provided by Lehigh Valley Planning Commission and the U.S. Geological Survey.

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

WOODLANDS & NATURAL AREAS

MAP 1.6

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



“ While the natural area is not directly impacted by development to date, development pressures may encroach upon this natural area in the future. Care should be taken to recruit uses compatible with sustaining this natural area.”

- **Blue Mountain** — Blue Mountain is the most extensive, relatively contiguous area of natural habitat in Lehigh and Northampton Counties. The mountain includes extensive forests with streams, seeps, sprongs, vernal pools, rock outcrops, and boulder fields. Blue Mountain has long been recognized as one of the major east coast flyways for migrating raptors. Conserving sites on the mountain, as recommended in the *Inventory*, must be considered as part of the effort to conserve the greater natural functional value of the mountain ridge.
- **Big Offset Barren** — Big Offset Barren is a broad, forested plateau which straddles the Northampton/Monroe County line on the Blue Mountain. The barren supports a fair- to good-quality population of G2G3 PA-Endangered Species. Long-term survival of species at the site may depend on the availability of forest gaps. Big Offset Barren is partly on the Appalachian National Scenic Trail Corridor.

Hydrology

Hydrology (Map 1.7) is the science of water. In planning, hydrology involves surface waters, drainage basins, floodplains, and wetlands.

Creeks, streams and other surface waterways are valuable aquatic habitats that provide both active and passive recreation. Principal waterways in the area include the Little Bushkill Creek and its tributaries, Mud Run and Waltz Creek. The Little Bushkill Creek is the largest waterway and drains most of the area through Plainfield Township. Mud Run is a small stream which drains the southeast corner of Plainfield Township. The Borough of Pen Argyl is situated at the headwaters of Waltz Creek. Waltz Creeks drains Pen Argyl and the northeast portion of Plainfield towards Martins Creek. Pennsylvania’s water quality standards designate protection categories for streams and establish water quality criteria for each category that are used in regulating the discharge of effluent into streams. Cold Water Fisheries are streams that should be protected as habitat for cold water fish and other fauna and flora indigenous to cold water. High Quality-Cold Water Fisheries are Cold Water Fisheries with excellent water quality and other environmental attributes. Trout Stock Fisheries are streams that qualify for trout stocking by the state. The PA Department of Environmental Protection (DEP) has classified the Little Bushkill Creek as a High Quality-Cold Water Fishery and Trout Stock Fishery.

Drainage basins are storm water catchment areas. Watershed boundaries for drainage basins are delineated by ridge lines. Drainage basins are logical service areas for sanitary sewer systems because lines that carry wastewater by gravity do not require pumping stations. Most of the area falls within the Bushkill Creek watershed. Pen Argyl and the northeast portion of Plainfield Township fall within the Martins/Jacoby Creeks watershed.

Pennsylvania Act 167 requires that comprehensive storm water management plans be prepared for each watershed in the state. The plans protect surface water quality and aquatic habitat by generating municipal regulations that control storm water runoff. Act 167 plans have been prepared for both watersheds in the region. Both plans:

- Provide a framework for managing storm runoff.
- Coordinate storm water management efforts within each watershed.
- Encourage the local administration and management of a coordinated storm water program.
- Include storm water management ordinances for adoption by local municipalities.

One hundred-year floodplains are areas that will flood during a storm with an intensity only seen in the area on the average of once every 100 years. In other words, the entire area of the 100-year floodplains (Map 1.7) has a 1 in 100 (or 1%) chance of flooding in a given year, according to the Federal Emergency Management Agency (FEMA). In addition to providing natural habitat, floodplains carry flood waters and help moderate flood heights. Interfering with the flow of water can result in more severe flooding, costly property damage, and loss of life. Floodplains also absorb and store large amounts of water, serving as a source of aquifer recharge.

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

Wetlands are areas that have vegetation and soil types characteristic of a permanently or frequently saturated environment, including swamps, marshes, bogs, and similar environments. Wetlands are important groundwater recharge areas that support wildlife, fish, and other aquatic life. Wetlands also reduce flooding by detaining storm water. Besides protecting against floods, slowing storm water discharge helps filter impurities that can contribute to surface water and groundwater pollution.

The National Wetlands Inventory (NWI), the source of wetland information in Map 1.7, shows the approximate location of many prominent wetlands based on aerial photography. However, the NWI does not show all wetlands along stream corridors and other low-lying areas. Hydric soil types can also indicate wetlands. The only completely accurate method of locating wetlands is a professionally-prepared, site-specific wetlands delineation.

Prime Agricultural Soils

The U. S. Soil Conservation Service (SCS) has established soil capability classes based on each soil type's agricultural productivity. Capability classes range from Class I (soils with few limitations for farming) to Class VIII (soils generally unsuitable for farming). Class I, II, and III soils are considered "prime agricultural soils."

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

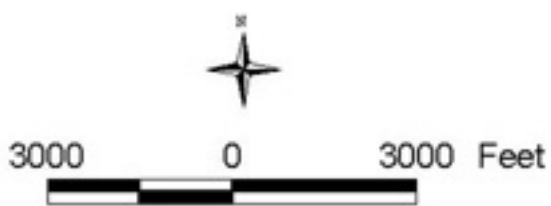
MAP 1.7

HYDROLOGY

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



-  Major Basins
-  Minor Basins
-  Known Wetlands
-  Waterways
-  100 Year Floodplains



Source Information Provided by Lehigh Valley Planning Commission.

Significant amounts of prime agricultural soils are found in Plainfield Township (Map 1.8). Most of the areas with prime soils are currently being farmed.

Soil Suitability For On-Site Septic Systems

Soils are also classified according to their suitability for accommodating on-site septic systems, using characteristics such as depth to bedrock, depth to groundwater, and permeability (Map 1.9). Septic systems in soils that percolate too rapidly can degrade groundwater because impurities are not sufficiently absorbed before reaching the water table. Conversely, soils that do not drain fast enough can cause the unhealthy surface ponding of wastewater. Nearly all of Plainfield Township relies on private, individual wells and septic systems rather than public, central water and sewer service, making suitability for septic systems especially important in the township. According to the *Northampton County Soil Survey*, most of Plainfield Township contains soils with “severe” limitations for on-site septic systems. Small areas with “moderate” limitations are scattered throughout the township with a concentration near the township’s western border.

In areas with soil limitations, sand mounds may be required to allow an on-site septic system. As the name implies, a sand mound system requires wastewater to pass through an elevated mound of sand for additional filtration before the effluent passes into the septic tank.

Primary treatment in a properly functioning on-lot system takes place in the septic tank where the heaviest matter (sludge) settles to the bottom and must be pumped out periodically. Liquid matter exits the tank through pipes into a layer of gravel and then percolates through the soil where contaminants are largely neutralized.

COMMUNITY FACILITIES AND SERVICES

Community facilities and services include locations and services which are provided to the community for the health and safety and welfare of the general public. Community facilities and services include:

- Public education.
- Fire protection.
- Ambulance service.
- Police protection.
- Solid waste disposal.
- Parks and recreation.
- Storm drainage.
- Central sewage disposal.
- Central water service.
- Library service.

The following section describes the community facilities and services available in the Pen Argyl—Plainfield—Wind Gap area.

Public Education

Pen Argyl, Plainfield, and Wind Gap are all within the Pen Argyl Area School District. The district includes three schools (Map 1.10):

- Plainfield Elementary School (grades K-3).
- Wind Gap Middle School (grades 4-8)
- Pen Argyl Area High School (grades 9-12).

According to the Pennsylvania Department of Education (DOE) and the Pen Argyl Area School District, the projected total enrollment for the current school year (2002–2003) is 1,910 students (including students enrolled in gifted and special education programs), a decrease of 2.0 percent from the previous year. Enrollment in the district has remained relatively stable, fluctuating within a narrow range since 1997 (Table 1.20). The district projects a decrease in enrollment for the next few years despite a “bubble” of unusually high enrollment (current 7th and 9th grades) passing through the system.

**Table 1.20
Pen Argyl Area School District Enrollment, 1997–2007**

School Year	Total Enrollment	Change From Previous Year	
		Number	Percent
1997-1998	1,932	-	-
1998-1999	1,921	-11	-0.6
1999-2000	1,891	-30	-1.6
2000-2001	1,903	12	0.6
2001-2002	1,948	45	2.6
2002–2003	1,910	-38	-2.0
2003–2004	1,927	17	0.9
2004–2005	1,917	-10	-0.5
2005–2006	1,880	-37	-1.9
2006–2007	1,861	-19	-1.0

Sources: 1997–2003, Pennsylvania Department of Education
2003–2007, Pen Argyl Area School District

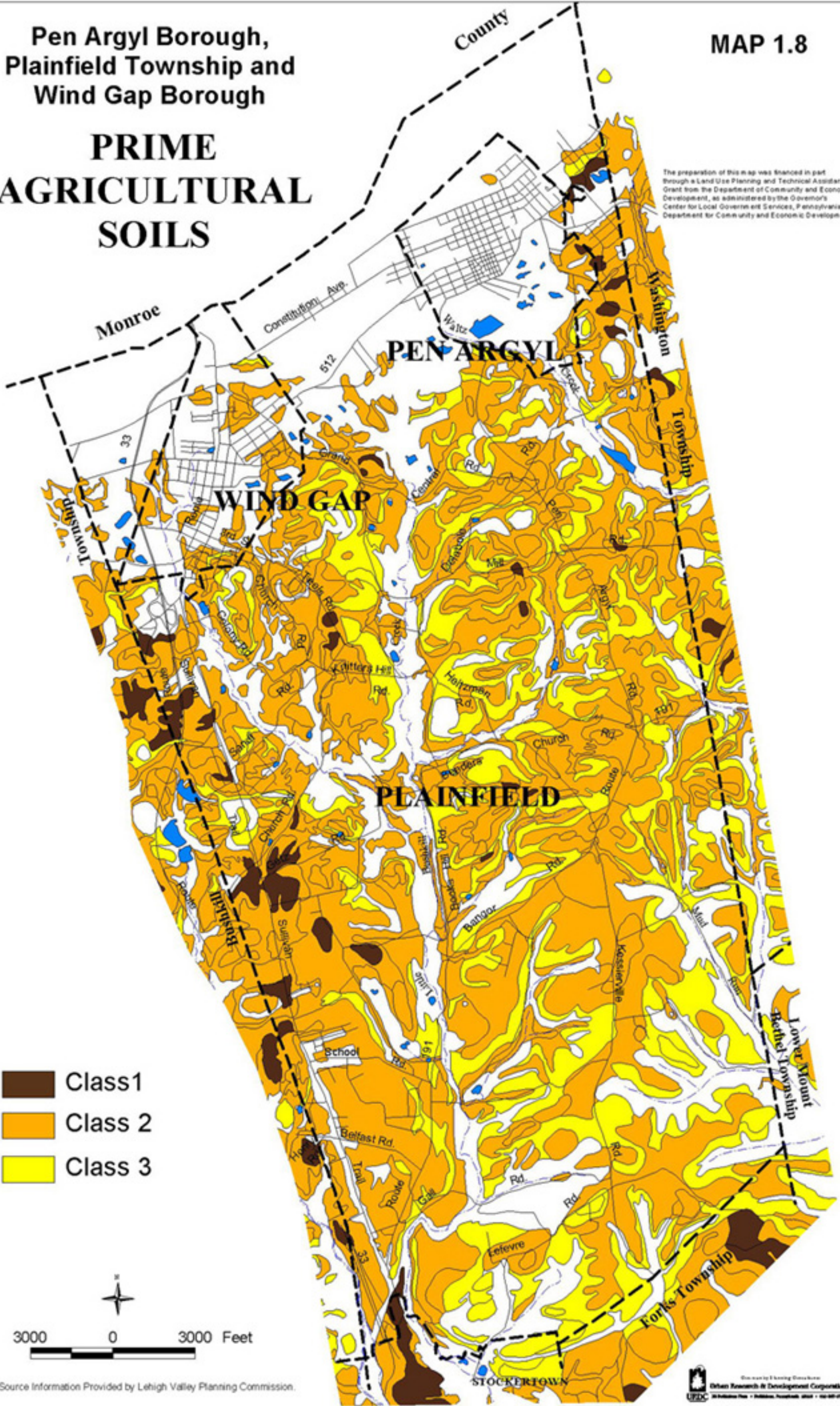
No new construction is planned in the school district in the near future. General improvements may be made with the help of state funds. In August 2001, the Pen Argyl Area School District was one of 99 school districts chosen to receive the Students Achieving Standards Grant Award. The award included \$63,271 to purchase and implement instructional and curriculum management and to integrate new learning systems, supplemental equipment, and training.

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

MAP 1.8

**PRIME
AGRICULTURAL
SOILS**

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- Class 1
- Class 2
- Class 3

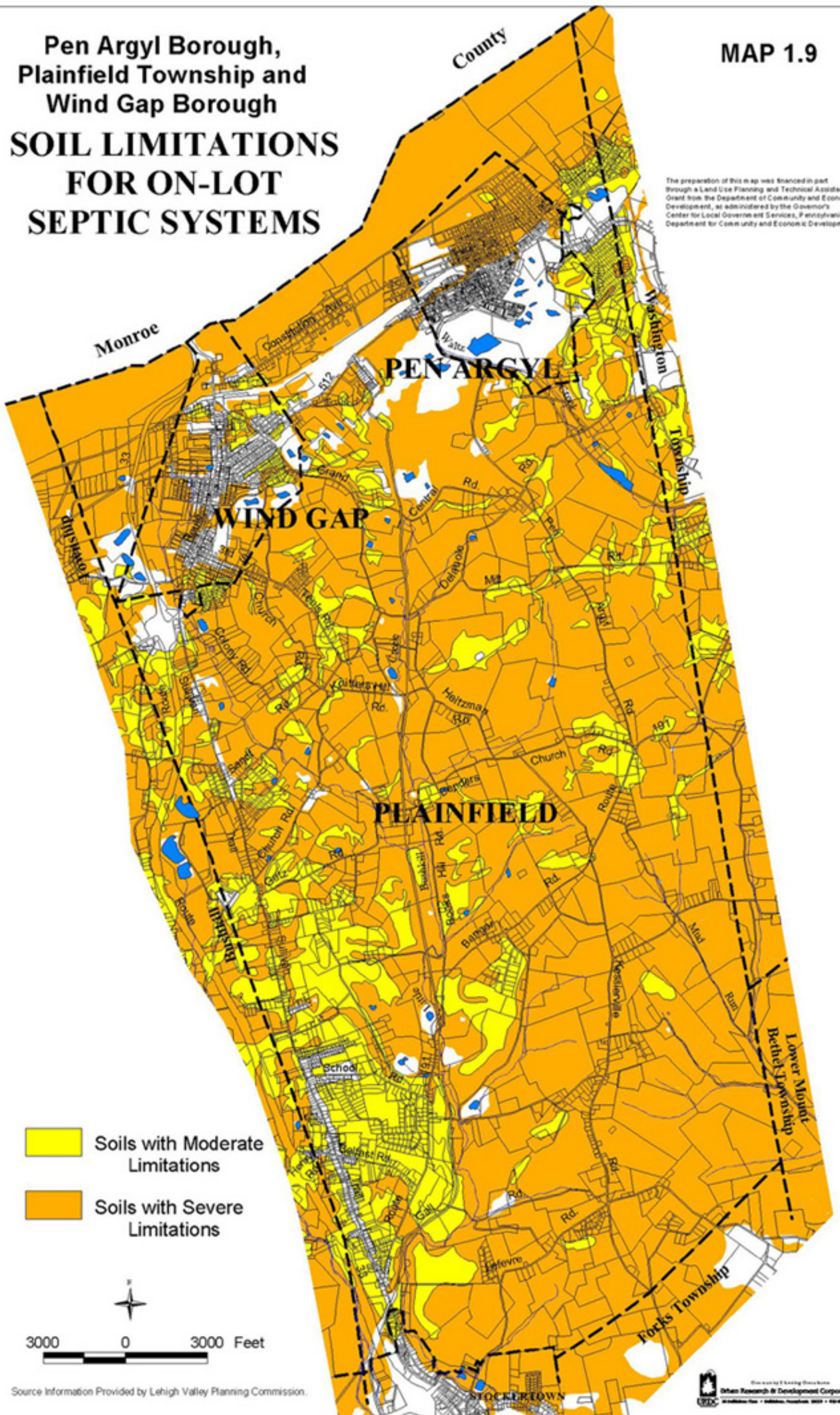
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Source Information Provided by Lehigh Valley Planning Commission.

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough
**SOIL LIMITATIONS
FOR ON-LOT
SEPTIC SYSTEMS**

MAP 1.9

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.

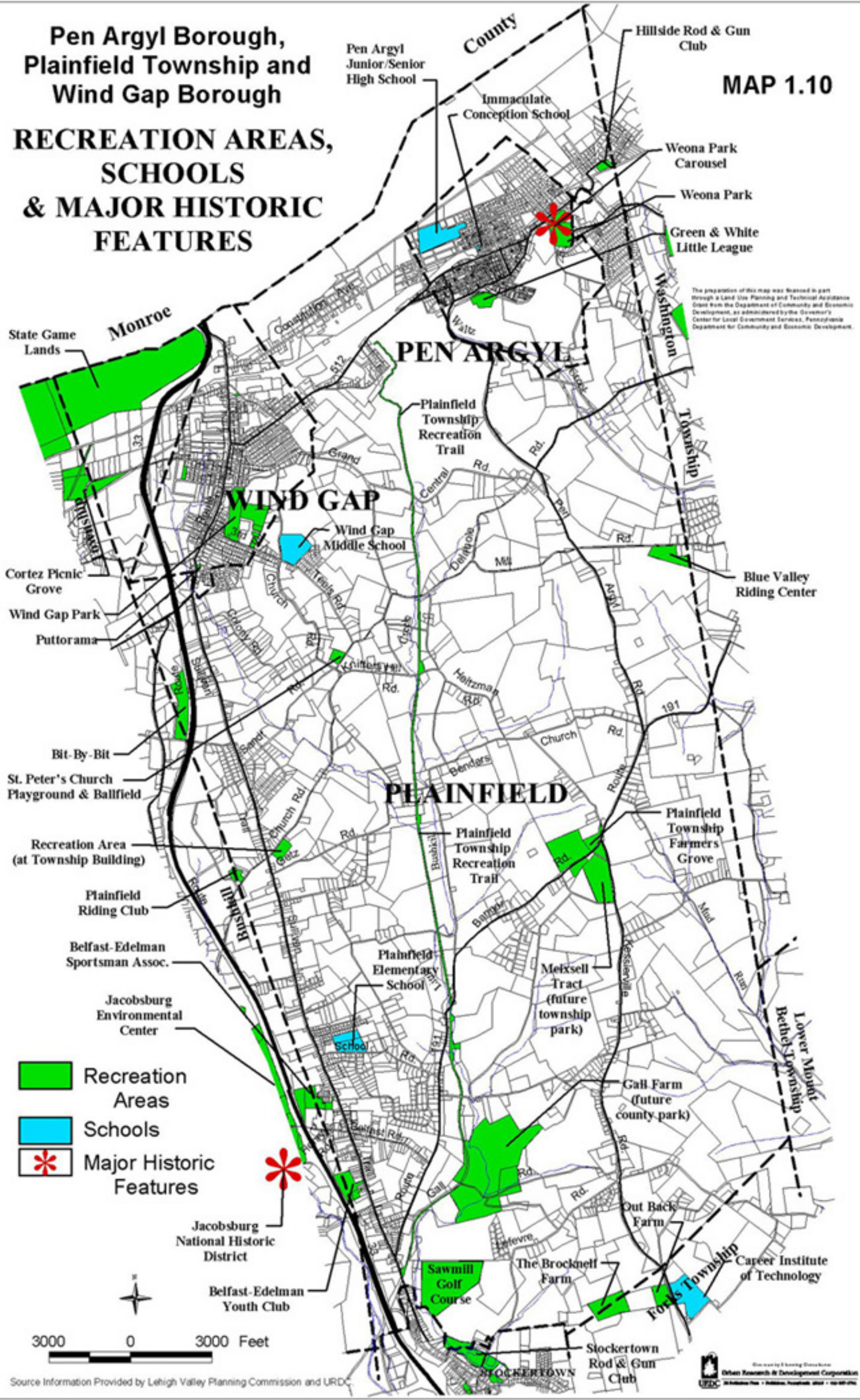


Source Information Provided by Lehigh Valley Planning Commission.

Pen Argyl Borough, Plainfield Township and Wind Gap Borough

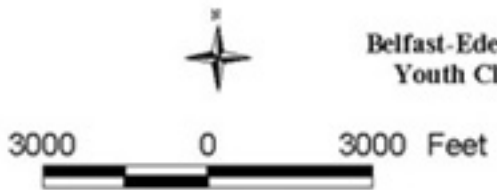
RECREATION AREAS, SCHOOLS & MAJOR HISTORIC FEATURES

MAP 1.10



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.

- Recreation Areas
- Schools
- ✳ Major Historic Features



Fire Protection

Wind Gap, Pen Argyl, and Plainfield Township each have individual fire departments. Wind Gap Fire Station 35, located at 111 N. Broadway, has 16 active responders and four rescue vehicles.

Lookout Fire Co. #1, on West Bell Avenue in Pen Argyl, serves an area of 2.2 square miles and provides fire, search and rescue services. Lookout has 30 active volunteers and three rescue vehicles. The Plainfield Township Volunteer Fire Department has two locations:

- 6480 Sullivan Trail, Wind Gap.
- Corner of Route 191 and Kesslerville Road.

The Plainfield department is composed of 25 volunteers and two paid staff members. The department operates two rescue vehicles.

Ambulance Service

Ambulance service in Pen Argyl is provided by Medic 9 Paramedic Service. Medic 9 provides basic and advanced life support, and has a 4-member bike team for special events, such as parades and carnivals.

Wind Gap uses Wind Gap Ambulance Service, located at 433 N. Broadway, for basic life support services, and Nazareth Ambulance for advanced life support. Patients in the boroughs are usually transported to either the Pocono Medical Center or Easton Hospital for treatment.

Plainfield Township uses Plainfield Township Ambulance (6480 Sullivan Trail) for basic life support, and Medic 9 for basic and advanced life support. Patients in Plainfield Township are usually transported to hospitals in Bethlehem or Easton.

Police Protection

Each municipality has a separate police department. The Plainfield Township police department is located at 6292 Sullivan Trail and has 8 full-time and 4 part-time officers. Pen Argyl Borough, based in the municipal building, has 4 full-time officers and a police chief. The Wind Gap police department, located in the municipal building on Mechanic Street, has 4 full-time and 3 part-time officers, and serves the Wind Gap area. No proposals to consolidate or regionalize police services are currently being considered.

Solid Waste Disposal/Recycling

Pen Argyl and Wind Gap each contract with Waste Management, Inc. (WMI) to collect residential trash. The trash is processed at WMI's landfill along Route 512 near Pen Argyl. WMI also collects materials for recycling on a bi-weekly cycle.

Plainfield Township does not provide municipal solid waste disposal. Residents contract directly with any of several trash haulers serving the township.

Grand Central Sanitation, which operates the landfill in Plainfield Township, also provides curbside recycling in Plainfield Township. The recycling program includes:

- Paper (newspapers and polycoated paper containers, such as drink boxes and gable top cartons).
- Glass (clear, green, and brown).
- Plastics (categories 1 and 2).
- Cans (aluminum, tin, and bimetal).

Parks and Recreation

The Pen Argyl—Plainfield—Wind Gap region includes a variety of parks and recreation areas (Map 1.10, Table 1.21). Public parks in the area can be classified as local or regional, depending on size, available facilities, and the area the park serves.

Local Recreation Areas

Local recreation areas include several different types of parks:

- **Miniparks** are usually one acre or less and serve the area immediately adjacent to the park—usually a radius of $\frac{1}{4}$ -mile or less. Miniparks may be designed to serve a certain group of people, such as young children or the elderly.
- **Neighborhood parks** often include courts, fields, and playground equipment for active recreation. Neighborhood parks usually serve a radius of $\frac{1}{4}$ - $\frac{1}{2}$ mile, a reasonable walking or biking distance from surrounding neighborhoods. The Green & White Little League in Pen Argyl is a good example of a neighborhood park.
- **Community parks** may include active recreation facilities, passive or natural areas, or a combination of both. Specialized facilities which draw from a larger area, such as swimming pools, are usually found in community parks. Community parks serve entire municipalities or groups of municipalities, often having a service radius of two miles or more. Community parks in the Pen Argyl—Plainfield—Wind Gap region include:

**Table 1.21
Parks and Recreation Areas**

Name	Municipality	Type	Size (acres)
Public			
Green & White Little League	Pen Argyl	Neighborhood	9.5
Weona Park	Pen Argyl	Community	18.0
Plainfield Township Recreation Trail	Plainfield	Regional	51.8
Farmers' Grove	Plainfield	Community	37.9
Gall Farm (future county park)	Plainfield	Regional	157.0
Plainfield Township Park	Plainfield	Community	11.0
PA State Game Lands #168	Plainfield	Regional	213.3
Meixsell Tract (future township park)	Plainfield	Community	29.9
Wind Gap Park	Wind Gap	Community	33.9
future borough park (2 parcels)	Wind Gap	Community	5.9
State game lands #168	Plainfield	Special Use	213.3
Private			
Cortez Picnic Grove	Plainfield	—	30.1
Hillside Rod & Gun Club	Plainfield	—	25.5
Bit by Bit	Plainfield	—	24.2
St. Peters Church Playground/Ballfield	Plainfield	—	4.3
Blue Valley Riding Center	Plainfield	—	15.4
Plainfield Riding Club	Plainfield	—	4.6
Belfast-Edelman Sportsman Association	Plainfield	—	19.4
Belfast-Edelman Youth Club	Plainfield	—	12.4
Sawmill Golf Course	Plainfield	—	73.5
Brocknell Farm	Plainfield	—	20.4
Stockertown Rod & Gun Club	Plainfield	—	24.4
Puttorama	Wind Gap	—	0.8
Sport's Spot	Plainfield	—	1.0

Sources: URDC
Northampton County Parks — 2010, Lehigh Valley Planning Commission, November 2002
Lehigh and Northampton Counties Digital Geographic Data, Release 3.0, LVPC, August 2003

- Wind Gap Park.
- Weona Park (Pen Argyl).
- Plainfield Township Park.

Regional Recreation Areas

Regional recreation areas are larger than local recreation areas and often include facilities for specialized activities, such as fishing, boating, or environmental conservation. Regional areas are large — often 200 acres or more — and can attract people over a large geographic area. Local examples of regional recreation areas include:

- State Game Lands No. 168 (Plainfield Township).
- Appalachian Trail
- Plainfield Township Recreation Trail

In addition, Jacobsburg Park is located on Jacobsburg Road in neighboring Bushkill Township and includes approximately 1,166.5 acres of land, 4.5 miles of streams, and 12.5 miles of trails used for hiking, mountain biking, and horseback riding.

The Appalachian Trail runs along the border of Plainfield Township on the edge of the Blue Mountains. The trail extends throughout the Appalachian Mountains, connecting Maine to Georgia. Direct access to the trail is available from Smith Gap Road and from PA 33 at Wind Gap.

The Plainfield Township Recreation Trail extends approximately seven miles from the southeast corner of the township near Rt. 191 just north of Stockertown to the northern part of the township near Rt. 512 just west of Pen Argyl. In 2000, the township obtained a grant from the Pennsylvania Department of Transportation to resurface the trail and make stormwater improvements along the lower portion.

Proposed Parks

In addition to the existing parks in the area, several new parks have been proposed. The Gall Farm, recently purchased from Emanuel Gall by Northampton County, is located north of Stockertown along the Little Bushkill Creek. The 157-acre site is large enough to include many different types of activities, and is located in a perfect position to serve a wide geographic area including Easton, Bethlehem, and the Slate Belt. The site is easily accessible from PA 33, PA 191, and Sullivan Trail. The Plainfield Township Recreation Trail passes through the western edge of the site, providing excellent access to both the trail and the proposed park.

The 29-acre Meixsell Tract was recently acquired by Plainfield Township. The site is centrally located adjacent to the Plainfield Township Farmers Grove and approximately 1.1 miles east of the Plainfield Township Recreation Trail. The Meixsell Tract and Farmers Grove area, along with additional lands acquired by the township, are now being planned as the new Plainfield Community Park.

The *Plainfield Township Community Development Plan* provides the following insight into plans for the two proposed parks:

“Given the central location of the Plainfield Recreation Trail and Farmers Grove Township Recreation Areas, a high priority should be given toward the further development of these two recreation areas. Improvements to the recently acquired 30-acres (the Meixsell Tract) of the Farmers Grove park should include: a paved bike and walking trail, softball fields, soccer fields, basketball courts, tennis courts, a playground, benches and a multi-use structure that would house restrooms, a concession area and picnic tables, parking and other site amenities.

“A high priority should also be given to making the following improvements to the Plainfield Township Athletic Association Youth Sports Complex: a paved and reconfigured entrance and parking area, upgraded concession area and restrooms, a pavilion with batting cages, improved ballfields including fencing and dugouts, a new ballfield, an improved playground and other site amenities.”

Private Recreation Areas

In addition to the public recreation areas in the region, residents also use many recreation sites owned by private commercial or nonprofit organizations to meet recreation needs. Private recreation sites in the region include:

- Belfast-Edelman Sportsman Association.
- Belfast-Edelman Youth Club.
- Bit-by-Bit.
- Blue Valley Riding Center.
- Brocknell Farm.
- Cortez Picnic Grove.
- Hillside Rod & Gun Club.
- Plainfield Riding Club.
- Puttorama.
- Sport’s Spot
- St. Peter’s Church Playground and Ballfield.
- Sawmill Golf Course.
- Stockertown Rod & Gun Club.

Regional Trail Potential

Trails are a significant recreation component in the Pen Argyl—Plainfield—Wind Gap area and can be developed into a network of recreation and transportation connections with the addition of new linkages. The existing Plainfield Township Recreation Trail and the Appalachian Trail can serve as major spines in a regional trail system. Other opportunities for trail network connections include:

- Extending the Plainfield Township Recreation Trail north to Wind Gap (possibly along the new industrial road north of NAPA and then along Broadway) to connect with the Appalachian Trail and make a direct connection to Delaware Water Gap.
- Extending the Plainfield Township Recreation Trail east from Pen Argyl Road along the former railroad bed to the Green and White Little League area and on to Weona Park.

- Building a new trail to connect the Plainfield Township Recreation Trail to the trail network at the Jacobsburg Environmental Education Center.
- Connecting the Jacobsburg Center to Wind Gap through a new trail in the Sober’s Run corridor and/or along the PPL right-of-way located west of and parallel to PA 33.
- Building new trails along the Bushkill Creek from Stockertown through Wilson to connect the Plainfield Township Recreation Trail to the Palmer-Bethlehem Bikeway, which allows a direct connection to the D & L National Heritage Corridor.
- Extending the larger of the two Forks Township recreational trails to Stockertown and the Delaware River Scenic Drive just above Easton, which allows a connection to the Easton Bike Path.
- Completing the Bushkill Creek Watershed Greenway Plan, which is now in progress.

Ultimately, the area could have a fully interconnected trail network that would link local parks, schools, and other key areas and connect directly to the Delaware and Lehigh National Heritage Corridor to the south and to the Appalachian Trail to the north.

The *Lehigh Valley Surface Transportation Plan 2003-2022*, prepared for the Lehigh Valley Transportation Study by the Lehigh Valley Planning Commission, includes recommendations relating to bicycle and pedestrian (B/P) networks. The plan states that:

“Emphasis should be placed in developing a series of multi-use paths that address regional transportation needs. Of particular interest should be missing links in the network, with the goal of developing a network of paths that allow users to move around the region. Also, communities should consider linking adjacent residential developments through B/P paths to reduce the dependence on the automobile and to increase alternatives to the user.”

Storm Drainage

Pen Argyl, Plainfield, and Wind Gap each own and maintain underground storm sewer systems. Collecting and conveying storm water and snow-melt runoff from the south side of Blue Mountain is a common concern for all three municipalities. Some of the minor natural drainage paths have been intercepted by simple storm sewer extensions within existing streets. However, the major natural channels (specifically those that flow through Wind Gap to form the headwaters of the Little Bushkill Creek) must be maintained, and any development proposal adjacent to major channels must carefully analyze and comprehensively mitigate the development’s impact on the storm water channels as well as on the downstream facilities.

While the street-grid layouts of the boroughs have led Pen Argyl and Wind Gap to develop networked storm sewers with a limited number of system outfalls, the majority of the storm sewerage in Plainfield Township is isolated single-pipe culverts under roadways. Each of the municipalities has addressed its drainage problems generally on an as-needed basis, with some financial assistance in the form of grants. Wind Gap has a CDBG-based storm sewer program in place, while Plainfield has used Landfill Closure and CDBG grants to fund construction of some important sewer construction projects. All of Wind Gap, most of Plainfield Township, and some of Pen Argyl are located within the Bushkill Creek watershed (Map 1.7), and stormwater management must meet the requirements of the watershed's Act 167 Plan. The remaining portions of Pen Argyl and Plainfield are in the Martin and Jacoby Creeks' watershed.

Public Sewer Service⁵

Public sewer service in the Pen Argyl—Plainfield—Wind Gap area (Map 1.11) is provided through two systems:

- Pen Argyl — The Pen Argyl sewage treatment plant (STP) provides public sewer service to the Borough of Pen Argyl and small areas of Plainfield and Washington Townships. The Pen Argyl STP has a permitted capacity of 950,000 gallons per day (gpd) and average daily flows of approximately 500,000 gpd.
- Wind Gap — The Wind Gap STP provides public sewer service to the Borough of Wind Gap and small areas of Bushkill and Plainfield Townships. The Wind Gap STP has a permitted capacity of 1,000,000 gpd and average daily flows of approximately 500,000 gpd.

In addition, the neighboring Borough of Stockertown has a public sewer system. At present, the Stockertown STP provides public sewer service only within the Borough of Stockertown. The Stockertown STP has a permitted capacity of 80,000 gpd and average daily flows of approximately 40,000 gpd.

The public sewer systems are presently adequate to handle some future development within current franchise areas and would not be a limiting factor to development. The extension of public sewer lines to serve new development within respective franchise areas is consistent with the Act 537 plans for these areas.

⁵ Sewer systems are identified by several distinguishing characteristics, defined as follows:

- Central sewer system: A publicly- or privately-owned system serving two or more lots in a service area limited to specific lots, subdivisions, or land developments.
 - Community on-lot disposal system: A system serving two or more lots which discharges domestic sewage into a subsurface soil absorption area.
 - Public sewer system: A publicly-owned system serving a generalized area.
-

Potential Sewage Disposal Problem Areas

Two areas of Plainfield Township have been identified by both the Lehigh Valley Planning Commission and the township's Act 537 plan as potential on-site sewage disposal problem areas:

- *Belfast Area (Sullivan Trail from Route 191 north to Fulmer Road)* — The Belfast area should be analyzed further through updated Act 537 planning to fully determine the extent of problems due to marginal soils and smaller lot sizes. Since the area is adjacent to a large portion of Plainfield Township which is not recommended for urban development, all alternatives to public sewers should be considered before choosing conventional public sewers. Installation of public sewer in Belfast may spur unwanted growth. Excessive growth in Belfast could cause hydraulic overloading or have other negative impacts on Stockertown's existing sanitary sewer system.
- *West Pen Argyl (south side of Route 512 between Wind Gap and Pen Argyl)* — The West Pen Argyl area consists of both developed and undeveloped parcels of varying sizes. The area should be further analyzed through updated Act 537 planning to fully determine the extent of existing problems due to marginal soils. The area is relatively close to the Wind Gap and Pen Argyl STPs. However, the extension of public sewers to the West Pen Argyl area would almost certainly result in the development of vacant parcels. The area is currently served by public water, is adjacent to existing infrastructure, and is generally considered to be a growth node within the study area. Any extension of public sewers to the area would require an intermunicipal agreement between Plainfield and Wind Gap and/or Pen Argyl and an expansion of the existing franchise areas for the STPs.

In addition, LVPC identifies two additional areas of potential sewage problems:

- *Rasleytown (surrounding the intersections of Rasleytown, Benders Church, and Bookshill Roads)*
- *Edelman (Bangor Road [PA 191] between School Road and Bookshill Road)*

Water Service ⁶

Water is supplied to the Pen Argyl—Plainfield—Wind Gap area by the Pennsylvania-American Water Company, Blue Mountain Division. Water company records indicate that Penn-American

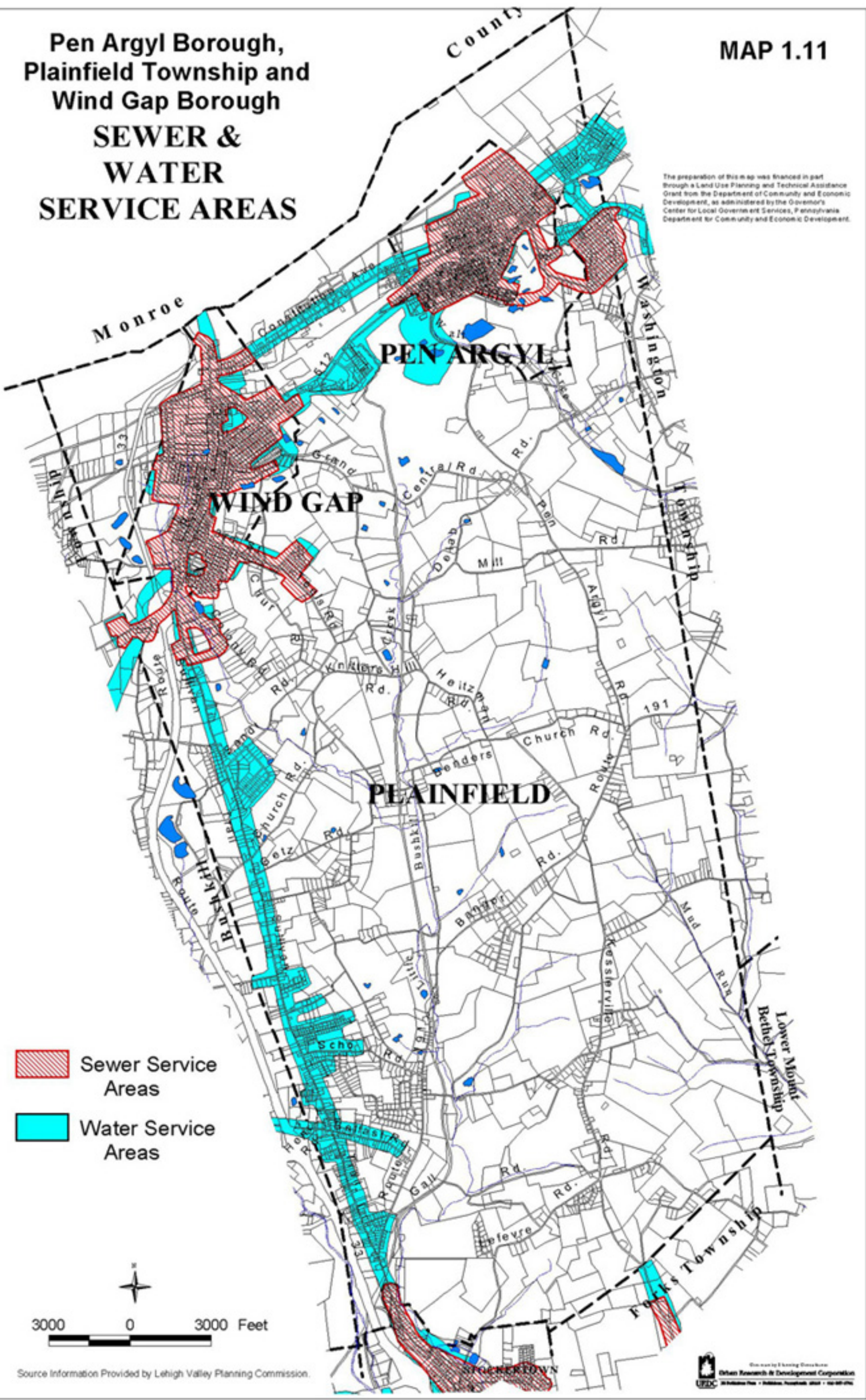
⁶ Water systems are identified by several distinguishing characteristics, defined as follows:



- Central water system: A publicly- or privately-owned system serving two or more lots in a service area limited to specific lots, subdivisions, or land developments.
 - Community water system: A system serving a generalized area and designed independently of specific subdivisions or land developments.
-

Pen Argyl Borough, Plainfield Township and Wind Gap Borough SEWER & WATER SERVICE AREAS

MAP 1.11

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



-  Sewer Service Areas
-  Water Service Areas

3000 0 3000 Feet

Source Information Provided by Lehigh Valley Planning Commission.

serves 100 percent of the Wind Gap population, 97.7 percent of the Pen Argyl population, and 43.4 percent of the Plainfield Township population.

Penn-American records indicate that the entire area of the three communities is included within the company’s “charter territory” or “franchise area.” Penn-American currently serves most of Wind Gap and Pen Argyl and portions of Plainfield Township surrounding and between the two boroughs as well as the area along the Sullivan Trail corridor (SR 1005) between Wind Gap and Stockertown (Map 1.11). In addition, the Blue Mountain Division serves the following areas:

- | | |
|--|---|
| <p><i>Northampton County</i></p> <ul style="list-style-type: none"> • Nazareth • Stockertown • Tatamy • Upper Nazareth Township • Bushkill Township • Forks Township (part) | <p><i>Monroe County</i></p> <ul style="list-style-type: none"> • Hamilton Township (part) • Ross Township (part) |
|--|---|

Water service to development outside the existing public water supply service areas is provided via privately owned individual wells. Penn-American’s annual water supply report for 2001 documents the following characteristics:

Totals, Blue Mountain Division: Average Daily Water Use	2,074,263 gallons
Peak Day Water Use	2,687,000 gallons
Minimum Day Water Use	1,638,000 gallons
Population Served (2002)	20,160

Number of Connections (2001)

<i>Total, Blue Mountain Division</i>		<i>Pen Argyl—Plainfield—Wind Gap area</i>	
Domestic	7,508	Domestic	3,181
Commercial	494	Commercial	227
Industrial	81	Industrial	31
<u>Other (Fire Protection)</u>	<u>87</u>	<u>Other (Fire Protection)</u>	<u>28</u>
Total	8,170	Total	3,467
			(42 percent of division total)

The Penn-American, Blue Mountain Division operates:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Two surface water filtration plants. • Eight ground water wells. • An active interconnection with the Penn-American Water Company, Bangor Division. | <ul style="list-style-type: none"> • An emergency interconnection with the Easton Suburban Water Authority system. |
|---|---|

The PA Department of Environmental Protection reports the total Blue Mountain Division capacity is 6.3 million gallons per day, which is more than two times the system peak day demand and three times the average day demand. The system has treated water storage capacity of 3.1 million gallons and raw water storage capacity of 13.3 million gallons.

In conclusion, Penn-American has sufficient water supply treatment capacity and statutory authority to provide public water service to additional areas within the Pen Argyl—Plainfield—Wind Gap area. Public water supply availability is not a limiting factor to future development.

Library Service

The Blue Mountain Community Library (BMCL) is located at 216 South Robinson Avenue in Pen Argyl. The library was founded in 1992 to serve the three municipalities which comprise the Pen Argyl Area School District: Pen Argyl, Plainfield Township, and Wind Gap. As of February 2003, 2,879 residents of the three municipalities were members of BMCL, which is open 14 hours a week over five days. BMCL conducts a Summer Reading Program and has a collection of 12,000-15,000 volumes available for borrowing.

BMCL's primary goal is to meet the requirements to qualify for state funding, which are:

- Ongoing contractual funding commitments from participating municipalities at a level of \$5 per year per resident.
- Twenty or more hours of operation per week.

In addition to funding, state recognition will permit BMCL to become part of the Access Pennsylvania program, in which members of recognized libraries can borrow from the collections of any recognized library in the state free of charge. Information about BMCL and its programs is available at <http://www.enter.net/~bmcl/>.

TRANSPORTATION

Streets and highways are the primary component of the transportation system in the Pen Argyl—Plainfield—Wind Gap area. Some public transportation service is also provided by the Lehigh and Northampton Transportation Authority.

Street and Highway System

The areas in and around Pen Argyl, Plainfield Township, and Wind Gap are served by roads that fall into one of the following four functional classifications:

- **Expressway:** Expressways handle the highest levels of traffic volumes at the highest speeds (55 mph and above). An expressway is a multilane facility with access limited to interchanges which primarily serves to carry “through traffic” and to connect arterial roadways. Parking along expressways is prohibited. PA 33, which cuts across the northwest corner of the study area, is the region’s only expressway.
- **Arterial:** An arterial is typically a two- to four-lane facility that is subjected to high traffic volumes at medium to high speeds (40 mph to 55 mph). Arterials serve primarily to convey traffic to and from the expressway interchanges but can also interconnect other arterial or collector roadways. A moderate degree of access control is usually encouraged along arterials, and parking is usually prohibited. Arterials within the study area include PA 512 (Broadway in the Borough of Wind Gap; parking allowed), PA 191 (Bangor Road through Plainfield Township), Sullivan Trail, and Kesslerstown and Pen Argyl Roads.
- **Collector:** A collector is a two-lane roadway that distributes traffic from the arterial roads amongst the individual areas served by the local road networks. Speeds are generally in the 30 mph to 40 mph range, and parking is usually permitted at least along one side of the roadway. Third Street in Wind Gap and Delabole Road in Plainfield Township are examples of collector roads.
- **Local:** Local roads provide direct access to individual residences as well as to the smaller commercial and institutional uses. The maximum permitted speed is typically 25 mph. Access to local roads is unlimited, and roadside parking is usually permitted wherever space allows.

Traffic counts conducted in the late 1990s show that only three area roadways had average daily traffic volumes above 10,000 trips per day:

- PA 33
- PA 191, from Main Street in Stockertown to Kesslerstown Road in Plainfield Township
- PA 512, from the PA 33 interchange to 9th Street in Bangor

Although minor queuing was observed at certain intersections during the peak traffic periods (along with the associated increase in delay), the roadway system overall within the three municipalities appears to be operating at acceptable service levels. Some residents have complained of excessive landfill truck traffic throughout the study area and of congestion along Broadway in Wind Gap. Neither of the two problems cited was observed during the field inspections done for the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*.

The recently-completed study *A Strategy for Economic Enhancement of the Route 33 and 512 Corridor* (cited previously) documents an observation that the recent completion of PA 33 from U. S. 22 to I-78 has intensified the interest in the Pen Argyl—Plainfield—Wind Gap area from an

industrial, commercial, and residential perspective, and the result is an acceleration in development and planned activity. Given increased development pressure, a primary issue becomes managing the market-driven growth in ways most beneficial to the surrounding communities. One important tool in managing traffic impacts of development is providing parallel and connecting roads to relieve and support the major vehicular routes through the area.

The *SR 512 Truck Route Study* (Alfred Benesch & Company, 2002) examined the feasibility of pursuing a “borough by-pass” roadway between PA 33 in Bushkill Township and PA 611 in Upper Mt. Bethel Township. One of the main advantages of the potential roadway is the removal of truck traffic along PA 512 from the downtown areas of Wind Gap, Pen Argyl, Bangor, East Bangor, and Roseto. One segment of the potential roadway will serve as the main driveway to the proposed NAPER development.

Currently in the design stage, the NAPER industrial/office park development includes a central roadway that would also serve as a truck route through portions of Wind Gap and Plainfield. The development would be located between the boroughs on the north side of PA 512. The eastern end of the main service road would be connected to PA 512 directly across from the entrance to the Grand Central Sanitary Landfill. The road would approximately parallel Constitution Avenue as it continues to the west toward Wind Gap, terminating at the T-intersection with North Broadway just north of Park Avenue in Wind Gap.

Some municipal officials have expressed an interest in continuing the NAPER road to a potential new interchange with PA 33 between the existing PA 512 and North Broadway interchanges. Before a project can be placed on local transportation plans for potential funding through the Lehigh Valley Transportation Study (LVTS), a comprehensive analysis must be prepared and submitted to LVTS justifying the need for the interchange and any further westward extension. Current LVTS policy encourages projects that improve safety, relieve congestion, and/or serve to maintain existing facilities. The access improvement and potential economic development impacts of a potential interchange would be considered but may not be regarded as highly as the three top factors (safety, congestion relief, facility maintenance).

The Benesch study recommends further study of both the borough bypass to the east and the western extension of the NAPER road to PA 33 and beyond. Wind Gap and Plainfield could each prepare an “Official Map” in accordance with the provisions of the Pennsylvania Municipalities Planning Code to identify and reserve the lands necessary for an interchange and western road extension.

The *Lehigh Valley Surface Transportation Plan 2003-2022* (Lehigh Valley Planning Commission for the Lehigh Valley Transportation Study, November 2002) identifies several roadway segments in the three municipalities as experiencing more severe and/or a higher frequency of accidents than the average rates for the state. The three classifications of accident corridors, and the segments under each classification within the Pen Argyl—Plainfield—Wind Gap area are:

High-Priority — more severe and more frequent accidents

- PA 512, Park Avenue to Third Street in Wind Gap

High-Frequency — more frequent accidents

- Sullivan Trail, from PA 512 to State Park Road in Plainfield
- Jacobsburg Road, from PA 512 in Plainfield to Kromer Road in Bushkill Township
- Sullivan Trail, Sexton Road to School Road in Plainfield
- PA 191, Stockertown to Sullivan Trail in Plainfield
- PA 191, Gap View Road to Mud Run Road in Plainfield
- PA 191, Pen Argyl Road to Franklin Hill Road in Plainfield

Severe — more than four fatalities or serious injuries per mile from 1995 to 2000

- PA 512, C Street to Main Street in Pen Argyl

A more complete listing of traffic concerns, including the identified crash corridors, evolved through conversations with representatives of the three municipalities. The identified concerns (Map 1.12, Table 1.22) were based on issues of pedestrian safety, excessive vehicular speeds, limited sight distances, and others.

Public Transportation

The Lehigh and Northampton Transportation Authority (LANTA) expanded its public, fixed-route bus service to the Slate Belt area in September 2002. LANTA's Route S runs nine to ten times each weekday between the City of Bethlehem and the Borough of Roseto, with stops at the Lehigh Valley Industrial Park IV, the Northampton County Home at Gracedale, the Borough of Nazareth, the Northampton Crossings and Palmer Park Mall shopping centers, and one stop each in the Boroughs of Tatamy, Wind Gap, Pen Argyl, and Bangor.

No modifications to the current Route S schedule are contemplated for at least the next five years, barring excessive unforeseen development. In Pen Argyl, however, walking to or from the Robinson Avenue bus stop in Pen Argyl is difficult for many transit users because Robinson Avenue is a steep incline. Although LANTA's Metro Plus division provides by-reservation-only shared-ride transportation services as an alternative to the fixed-route bus, diverting the Route S bus a few blocks and adding another stop within the borough may better serve elderly transit users.

CURRENT ZONING POLICY

Pen Argyl, Plainfield Township, and Wind Gap each have individual zoning ordinances which govern land use and provide protection for lands unsuitable for development. The following sections

**Table 1.22
Areas of Traffic Concern**

No.	Location	Problem Description(s)
Plainfield Township		
1	Kesslerstown Road / Long Road	• Limited sight distance
2	Kesslerstown Road / Capp Road	• Limited sight distance
3	Mud Run Road / Miller Road	• Limited sight distance
4	PA 191 / Books Hill Road	• Excessive speeds / severe weather result in southbound vehicles leaving Rt. 191.
5	Church Road	• Single-lane bridge
6	Getz Road, east of Batts Switch Road	• Severe curve • Single-lane bridge
7	Rasleytown Road	• Single-lane bridge
8	Pen Argyl Road / PA 191	• Limited sight distance • Excessive open pavement area
9	George Street / PA 512	• Severe skew • Limited sight distance
10	William Street / PA 512	• Severe skew • Limited sight distance
11	Speer Avenue / PA 512	• Limited sight distance
Pen Argyl		
12	E Street / Main Street	• Confusing traffic control priority
13	Flory Street / South Main Street	• Excessive open pavement area
14	Flory Street, east of South Main Street	• Excessive westbound speeds
15	PA 512 at Weona Park (east of Main Street)	• High vehicle speeds on PA 512 in area of pedestrian traffic
Wind Gap		
16	Center Street / PA 512	• Insufficient time provided for elderly pedestrians to cross
17	Park/Lehigh / Utica Avenues / PA 512	• Confusing right-of-way assignment • Limited sight distance • Excessive open pavement area

Note: Curbside parking significantly limits the roadway width available for moving vehicles at numerous locations in Pen Argyl. Reducing the lengths of curbing along which parking is permitted, especially near intersections, would improve both roadway capacities and safety.

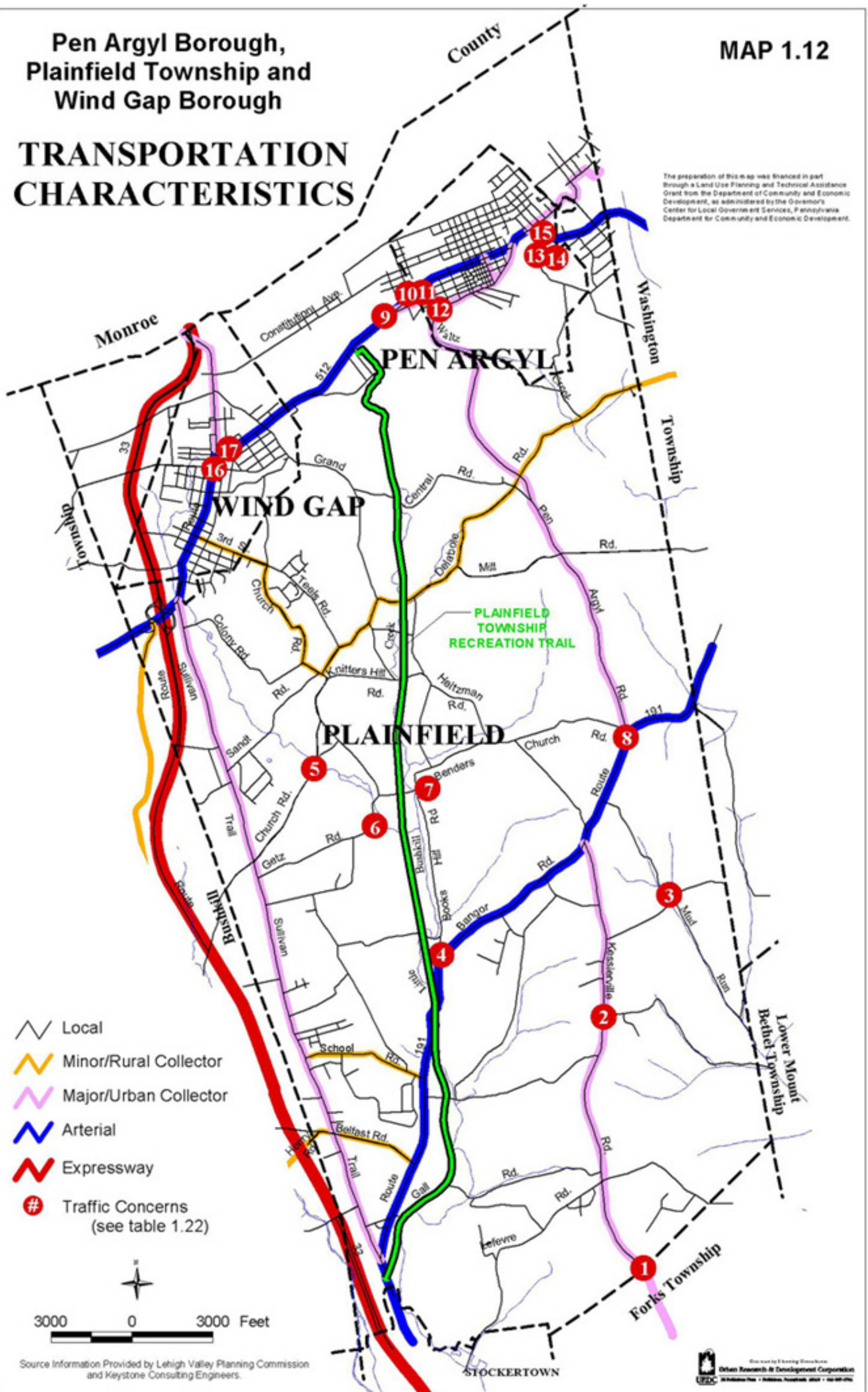
Source: Keystone Consulting Engineers

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

MAP 1.12

TRANSPORTATION
CHARACTERISTICS

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



describe key provisions of the three municipal ordinances⁷ and include a generalized map of zoning districts (Map 1.13).

Pen Argyl

The current Pen Argyl zoning ordinance was adopted on 8 July 1997. The ordinance establishes the following districts, which include uses permitted by right and special exception uses, which require the approval of the zoning hearing board:

- **R-10 — Low Density Residential** —Uses in the R-10 district which are permitted by right include single-family detached dwellings, agricultural uses except animal husbandry, outdoor recreation areas, and places of worship. Minimum lot size is 10,000 square feet per unit or use.
- **R-7.8 — Medium Density Residential** — Uses in the R-7.8 district which are permitted by right include all uses permitted by right in the R-10 district, two-family dwellings, multiple dwellings, and child day care center. Minimum lot size is 5,000 square feet per unit for two-family dwellings, 3,600 square feet per unit for multiple dwellings, 5 acres for a mobile home park (special exception use), and 7,800 square feet per dwelling unit or use for all other permitted uses.
- **R-L — Limited Residential** — Uses permitted by right in the R-L district are the same as in the R-10 district. Minimum lot size is 20,000 square feet per unit or use.
- **GB — General Business** — Uses permitted by right in the GB district include a range of offices, retail businesses, lodging, and services oriented to the general public. Minimum lot sizes are 1,000 square feet per bedroom for hotels, motels, and boarding houses, and 7,800 square feet for all other permitted uses.
- **IL — Light Industrial, Commercial** —Uses permitted by right in the IL district include:
 1. Offices.
 2. Nuisance industries, such as printing plant, newspaper plant, manufacture of electrical components or textiles, and drycleaning plant/laundry.
 3. Other light industrial uses, such as industrial parks, research facilities, wholesale/warehouse/storage/distribution.
 4. Some commercial uses requiring large areas, such as auto/machinery sales and building materials sales/storage.
 5. Selected public uses, such as public utilities and parks.

Minimum lot size in the IL district is 30,000 square feet.

⁷ The lists of uses do not include all details of the ordinances. Readers interested in complete details should consult the individual ordinances.

- **IE — Extractive Industry, Manufacturing** — Uses permitted by right in the IE district include many of the uses permitted in the IL district plus the following uses which require large land areas and typically require some seclusion from residential areas:

1. Agriculture/horticulture/forestry.
2. Mining/quarrying/earth extraction.
3. Sand and gravel operations.

Minimum lot size in the IL district is 40,000 square feet.

- **SC — Special Conservation** — Uses in the SC district which are permitted by right include outdoor recreation areas, underground bomb or fallout shelters, municipal/civic/public buildings, cemeteries/mausoleums, tree nurseries, animal grazing land, and commercial forests. Minimum lot size is 43,560 square feet (one acre).

Plainfield Township

The current Plainfield Township zoning ordinance was adopted on 29 December 1983 and has been amended several times in the intervening years. The ordinance establishes and regulates four residential districts and eight nonresidential districts.

- **FF — Farm and Forest** — The FF district encourages the continuation of farming, a rural setting, forested areas, limited development, and an attractive rural residential living environment for single-family homes on relatively large lots. Uses permitted by right in the FF district are:

- | | |
|--------------------------------------|---|
| 1. Agriculture. | 11. Greenhouse/nursery. |
| 2. Agricultural industry. | 12. Kennel. |
| 3. Animal husbandry. | 13. Mobile/manufactured home on permanent foundation. |
| 4. Aquaculture. | 14. Municipal use. |
| 5. Bomb and fallout shelter. | 15. Picnic grove. |
| 6. Cemetery/mausoleum. | 16. Public recreation. |
| 7. Commercial stable/riding academy. | 17. Single-family detached dwelling. |
| 8. Crop storage. | 18. Township park. |
| 9. Day care facility/nursery school. | 19. Two-family dwelling. |
| 10. Golf course. | 20. Wildlife sanctuary. |

Minimum lot size is 435,600 square feet (10 acres) for animal husbandry and 65,000 square feet (approx. 1.5 acres) for all other uses.

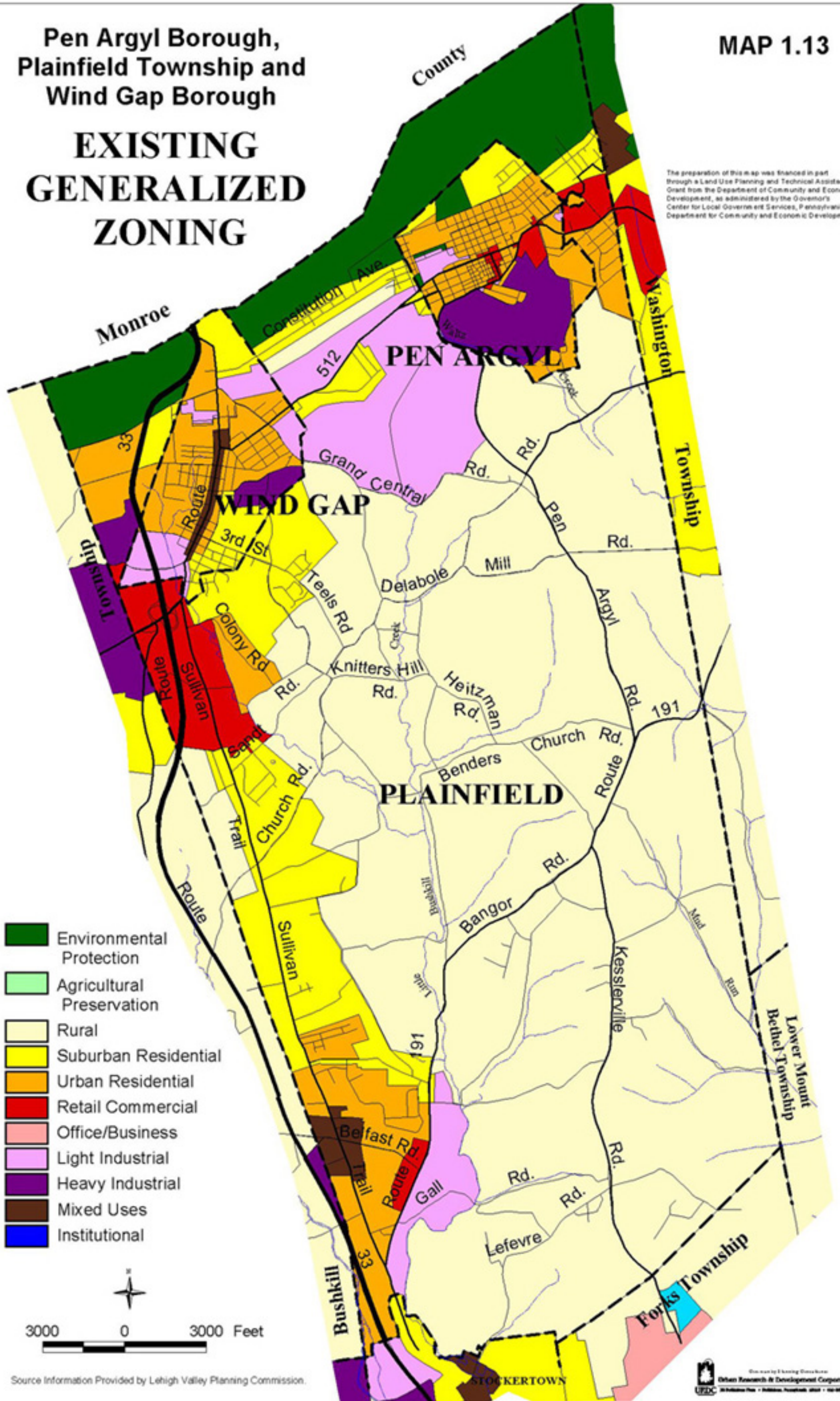
- **SR — Suburban Residential** — The SR district provides for low- to moderate-density residential areas, depending on central water and sewer availability. The SR district is intended to be predominantly single-family detached dwellings in attractive living environments. Uses permitted by right in the SR district are agriculture, public recreation, day care facility/nursery

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

MAP 1.13

**EXISTING
GENERALIZED
ZONING**

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



- Environmental Protection
- Agricultural Preservation
- Rural
- Suburban Residential
- Urban Residential
- Retail Commercial
- Office/Business
- Light Industrial
- Heavy Industrial
- Mixed Uses
- Institutional



3000 0 3000 Feet

Source Information Provided by Lehigh Valley Planning Commission.

school, single-family detached dwelling, and township park. Minimum lot size is 25,000 square feet if the lot is served by centralized water and sewer facilities. If the parcel uses on-lot water and/or sewer facilities, the minimum lot size is 43,560 square feet (1.0 acre).

- **PR — Planned Residential** — The PR district provides for a variety of affordable housing types at moderate densities. Uses permitted by right in the PR district include agriculture, day care/nursery, public parks and recreation, and most housing types. Lot sizes in the PR district vary with the use and the method of providing water and/or sewer services. Minimum lot sizes range from 7,000 square feet per apartment with central water and sewer to 43,560 square feet (1.0 acre) for selected residential types with on-lot water and sewer service and all permitted nonresidential uses.
- **VR — Village Residential** — The VR district provides for the continuation and expansion of the village of Belfast. The district provides a village living environment with a variety of housing types. Regulations in the VR district are similar to the PR district. Differences in the two districts occur primarily in the areas of conditional, special exception, and accessory uses and maximum impervious coverage. Uses permitted by right in the VR district are the same as in the PR district with the addition of one use: fire station, not including social or banquet halls. Minimum lot sizes in the OR district are generally the same as in the PR district.
- **VC — Village Center** — The VC district is intended to strengthen the village of Belfast as an important village center in the township by continuing and adding commercial uses, public uses, and a variety of residential uses in Belfast. Uses permitted by right in the VC district include a wide range of:
 1. Housing types, such as boarding/rooming/lodging house, single-family detached, mobile/ manufactured home on permanent foundation, single- to multifamily conversion, two-family dwelling.
 2. Commercial uses, such as personal services, shopping center, retail, financial.
 3. Offices, such as medical, professional, government.
 4. Public uses, such as fire station, including social hall, community center, park, municipal use, auditorium.

Lot sizes in the VC district vary with the use and the method of providing water and/or sewer services. Minimum lot sizes range from 5,000 square feet per multiple family dwelling with central water and sewer to 43,560 square feet (1.0 acre) for a single-family detached dwelling with on-lot water and sewer service.

- **HI — Highway Interchange** — The HI district recognizes the PA 33/PA 512 interchange as a special area in the township. Uses permitted in the HI district include many uses similar to those in the VC district plus others which benefit from good highway access and exposure, including:
 1. Automobile sales and services, including retail fuel.
 2. Automobile accessories.
 3. Automobile repair.
 4. Food and drink establishments.
 5. Commercial outdoor recreation.
 6. Planned industrial park.

Minimum lot sizes in the HI district are:

- 10,000 square feet with central water and sewer.
- 15,000 square feet with central sewer and on-lot water.
- 30,000 square feet with central water and on-lot sewer.
- 43,560 square feet (1.0 acre) with on-lot sewer and water.

- **GC — General Commercial** — The GC district provides for a variety of commercial uses at accessible and convenient locations. Uses permitted by right in the GC district include many of the uses permitted in the HI district plus several other more intense commercial uses, such as:

1. Light metal machining/finishing/grinding/polishing.
2. Light metal stamping/extrusion.
3. Manufacture of light metal products.
4. Open air retail sales of agricultural products.
5. Trade school.
6. Wholesale/storage/distribution, except truck terminals.

Minimum lot sizes in the GC district are the same as in the HI district.

- **CI — Commercial/Industrial** — The CI district provides a variety of commercial and industrial uses at accessible and appropriate locations. Allowed commercial uses are intended to mitigate potential conflicts between industrial uses and nearby residential uses. Commercial uses permitted by right include most of the uses permitted in the GC district plus several types of specialized facilities requiring large land areas, such as:

1. Aggregate stock pile and sales.
2. Aggregate crusher facilities.
3. Agricultural industry, including landscaping and composting.
4. Recycled products manufacturing.
5. Recycling facility.
6. Special mobile devices facility.

Industrial uses permitted by right include:

1. Agricultural industry.
2. Bakery.
3. Bulk photo processing.
4. Ceramic products industry.
5. Construction.
6. Crop storage.
7. Food products/packaging/storage/distribution.
8. Fuel oil.
9. Lumber yard.
10. Manufacture/compounding/processing/packaging/treatment of selected products.
11. Metal fabrication.
12. Millwork and other wood products.
13. Planned industrial park.
14. Printing/publishing/lithographing/bookbinding.
15. Research/testing laboratory.
16. Sawmill/planing mill.
17. Self-storage.
18. Textile/garment industry.
19. Warehouse.
20. Wholesale/storage/distribution, except motor freight terminals.

Minimum lot sizes for commercial uses in the CI district are:

- 10,500 square feet with central water and sewer.
- 15,000 square feet with central sewer and on-lot water.
- 30,000 square feet with central water and on-lot sewer.
- 43,560 square feet (1.0 acre) with on-lot sewer and water.

Minimum lot size for any industrial use in the CI district is 130,680 square feet (3.0 acres).

- **I-BP — Industrial/Business Park** — The I-BP district provides for small manufacturing and assembly operations which do not create pollution or overload utility or transportation systems. The district also provides for business offices, larger commercial uses, and well-designed industrial/business parks. Uses permitted by right in the I-BP district include many of the uses permitted in the CI district plus several more intense uses, including:

1. Animal hospital/veterinarian office.
2. Furniture manufacturing.
3. Manufacture/assembly/treatment of selected previously-prepared materials, such as plastics, bone, canvas, cellophane, cork, feathers, semiprecious metals or stones, shell textiles, or tobacco.
4. Manufacture of certain ceramic products, certain products from previously prepared paper or cardboard, precision instruments and equipment,
5. musical instruments, rubber products, textiles, toys, or wood products.
5. Manufacture/assembly of electrical/electronic devices, home/commercial/industrial appliances.
6. Manufacture of items from previously prepared paper or cardboard.
7. Processing/packaging/treatment/compounding of cosmetics/drugs/perfumes/pharmaceuticals.

- **GI — General Industrial** — The GI district provides for larger industries at appropriate locations and prevents conflicts with adjacent land uses. Uses permitted in the GI district represent a range of industrial activities. Minimum lot size in the GI district is 130,680 square feet (3.0 acres).

- **BMC — Blue Mountain Conservation** — The BMC district recognizes and protects the unique scenic, recreational, and environmental resources of Blue Mountain. Dominant land uses include forest land, state game land, and other open space uses. Uses permitted by right in the BMC district are limited to:

1. Agriculture.
2. Greenhouse/nursery
3. Public recreation.
4. Single-family detached dwelling.
5. Township park.
6. Wildlife sanctuary.

Minimum lot size in the BMC district is 10.0 acres.

- **SW — Solid Waste Processing and Disposal** — The SW district offers appropriate locations for solid waste processing and disposal as a needed public service while protecting other uses and the environment in the surrounding area, the township, and neighboring municipalities. The district also provides for a safe and orderly transition of uses after the closure of solid waste processing and disposal uses. Uses permitted by right in the SW district include:

1. Composting facility.
2. Fire station, not including social and banquet halls.
3. Material separation facility.
4. Recycling facility.
5. Refuse-derived fuel facility.
6. Sanitary landfill disposing of up to 100 tons of solid waste per day.

The ordinance also includes uses permitted by right in post-closure landfill sites. The ordinance specifically prohibits a dump, incinerator, junk yard, or solid waste transfer station in the SW

district. Minimum lot sizes in the SW district are 50 acres for a sanitary landfill, 3 acres for a composting/material separation/recycling/refuse-derived fuel facility, and 65,000 square feet (approximately 1.5 acres) for all other uses.

Wind Gap

The current Wind Gap zoning ordinance was adopted on 24 May 1993 and amended in 1996 to revise floodplain regulations. The borough is currently reviewing the ordinance to make selected changes deemed very important prior to a comprehensive ordinance review after the *Pen Argyl/Plainfield/Wind Gap Regional Comprehensive Plan* is adopted. The ordinance establishes and regulates:

- Four residential districts.
- Four nonresidential districts.
- Two overlay districts, which regulate development on floodplains and steep slopes in addition to the usage regulations applicable at any site.
- **R-12 — Low Density Single-family Residential District** — The R-12 district provides opportunities to expand relatively low density single-family residential areas and protects the areas from incompatible uses. Uses permitted by right in the R-12 district include:
 1. Single-family detached dwelling, including mobile/manufactured home.
 2. Public recreation.
 3. Growing of fruits, vegetables, flowers, trees, and shrubs not to sale.
 4. Essential services.

Minimum lot area in the R-12 district is 12,000 square feet.

- **R-10 — Medium Density Single-family Residential District** — The R-10 district establishes, protects, stabilizes, and offers opportunities to expand single-family detached residences at medium densities. Uses permitted by right in the R-10 district are the same as in the R-12 district. Minimum lot area in the R-10 district is 9,600 square feet.
- **R-8 — Medium Density Residential District** — The R-8 district provides for a wide variety of housing choices at medium densities. Uses permitted by right in the R-8 district includes the uses allowed by right in the R-10 district plus the following four housing types:
 1. Two-family dwelling.
 2. Single-family attached dwelling.
 3. Low-rise, multifamily dwelling.
 4. Group home, within a permitted dwelling unit.

Minimum lot size in the R-8 district is 5,000 square feet per dwelling unit for multifamily construction and 8,000 square feet for all other uses.

- **R-M — Medium Density Residential and Mobile Home Park District** — The R-M district provides for a wide variety of housing types, including mobile home parks, at medium densities. Uses permitted by right in the R-M district include all permitted uses in the R-8 district plus mobile home parks. Minimum lot size in the R-M district is 5,000 square feet per dwelling unit for multifamily construction, and 7,500 square feet for all other uses except mobile home parks. Mobile home parks must have a minimum tract size of seven (7) acres and a maximum gross density of five (5) dwelling units per acres.

- **C — Community Commercial District** — The CC district protects and expands Wind Gap’s primary commercial area in appropriate areas and attempts to minimize potential conflicts with neighboring residences. Uses permitted by right in the CC district include a broad range of:
 1. Commercial uses, such as personal services, financial establishments, retail stores.
 2. Food and beverage places, including fast food, standard restaurants.
 3. Lodging, such as hotels, motels, and rooming/boarding houses.
 4. Offices, including professional, governmental, business, and medical.
 5. Public uses, such as civic associations, libraries, and public recreation.
 6. Residential uses, including single-family detached and attached and low-rise multifamily.

Minimum lot size in the C district is the same as in the R-8 district for residential uses. Nonresidential uses in the C district have no minimum lot size.

- **I-C — Industrial and Heavy Commercial District** — The I-C district protects the borough’s current industrial and heavy commercial activities and provides for future development of nonnuisance industrial uses and commercial uses with large space requirements. Uses permitted in the I-C district include most of the uses permitted in the C district plus many others, including:
 1. Radio/TV transmitter.
 2. Telephone exchange building.
 3. Swimming/tennis club.
 4. Lumber/building materials.
 5. General service/repair.
 6. Manufacture/assembly/treatment of articles from selected previously-prepared materials.
 7. Manufacture of ceramics, textiles, toys, wood products, precision instruments/equipment.
 8. Processing/packaging/treatment of cosmetics/toiletries/drugs.
 9. Manufacture/assembly of electronics, home/commercial/industrial appliances.
 10. Processing/combining of food products.
 11. Light metal processing.
 12. Bottling/packing/packaging.
 13. Manufacture of products from previously-prepared paper or cardboard.
 14. Research/experimental.
 15. Publishing/printing.
 16. Bomb/fallout shelter.
 17. Residential dwelling in conjunction with permitted or special exception nonresidential use.
 18. Library
 19. Civic organization
 20. Flea market.
 21. Motor freight terminal.
 22. Bus terminal.
 22. Planned development, including shopping centers and planned industrial parks.

Minimum lot size in the I-C district is 40,000 square feet for planned developments and 20,000 square feet for all other uses.

- **I-SC — Industrial and Shopping Center District** — The I-SC district provides for orderly development of commercial and industrial facilities benefitting from highway access south of the borough. Uses permitted by right in the I-SC district are the same as in the I-C district with a few notable exceptions, with a few exceptions (such as motor freight terminal, self-storage, recycling collection, fuel oil company, and bus station/terminal) which are permitted by special exception. Minimum lot area in the I-SC district is 40,000 square feet for planned development, 1,000 square feet per bedroom for motels/hotels, and 20,000 square feet for all other uses.
- **I-ME — Industrial and Mineral Extraction District** — The I-ME district allows general industrial uses and permits the full use of natural resources while protecting the surrounding environment of the borough. The I-ME district permits by right a shortened list of the uses permitted in the I-C and I-SC districts and also permits mineral extraction as a special exception. Minimum lot sizes in the I-ME district are:
 - 200,000 square feet (approximately 4.6 acres) for mineral extraction.
 - 40,000 square feet for planned development.
 - 20,000 square feet for all other uses.

ADJACENT MUNICIPALITIES

Development policy in municipalities bordering the Pen Argyl—Plainfield—Wind Gap area can have an effect on adjacent portions of the region. An examination of the zoning policy adjacent to the area shows that most adjoining areas are compatible with current uses and zoning in the Pen Argyl—Plainfield—Wind Gap area (Map 1.13). Areas of potential conflict, if development were to occur as fostered by current policy, include:

- A small heavy industrial area in Bushkill Township adjacent to the east side of PA 33 which adjoins urban residential and mixed use areas west of Sullivan Trail in Belfast.
- A heavy industrial area in Plainfield Township between the northwest border of Wind Gap and the Bushkill Township border which adjoins 1) an urban residential area of Plainfield Township to the north, and 2) a rural area of Bushkill Township to the west.
- A light industrial area of Plainfield Township along the east side of PA 191 south of Gall Road which abuts a suburban residential area in neighboring Stockertown.
- A mixed use area in Washington Township borders a suburban residential area and an environmental protection area in the northeast corner of Plainfield Township.

Adjacent municipalities also have other significant geographic and governmental effects on the region:

- The road systems of Bushkill, Forks, Upper Mount Bethel, and Washington Townships, and Stockertown connect to roads in Pen Argyl—Plainfield—Wind Gap, carrying people and goods out of, into, and through the region, particularly in the area of the PA 33/PA 512 interchange.
- Many persons from outside the area come to play at Weona Park or to walk on the Plainfield Township Recreation Trail.
- Some areas of neighboring municipalities may be served by central water and sewer systems within the region.
- The Pen Argyl Area School District and its three component municipalities are working on a cooperative agreement regarding the future Plainfield Community Park (at the Meixsell tract and Farmers Grove), under which the school district would assist in maintaining the park and have the right to use the park for certain school functions.

PLAN FOR THE FUTURE

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* has four distinct parts:

- **Goals and Objectives** that describe the future of the Pen Argyl—Plainfield—Wind Gap area. Goals are general statements describing the community in 10–20 years. Objectives are more specific statements which describe ways to achieve a goal.
- **Recommendations** which are the proposals that should be implemented for the various plan subject areas. Ultimately, recommendations will accomplish the goals.
- **Statement of Plan Interrelationships and Timing** that explains how the various elements of the plan relate to one another. The statement is required by the Pennsylvania Municipalities Code (Act 247, as amended).
- **Action Program**, which offers additional information useful in implementing the recommendations.

GOALS AND OBJECTIVES

Goals describe the future. Goals are broad statements of policy to which the community should aspire and which guide community actions. Objectives are specific statements of policy or action which help move toward the goal. When a community is faced with a difficult decision about a specific project, a look at goals and objectives can help to remind the community of the desired future and allow leaders to see if and how the immediate decision can help achieve long-term results.

The goals and objectives of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* include one overall goal followed by supporting objectives in the following categories:

- Overall Goal
- Natural Resources and Features
- Land Use
- Housing
- Agricultural Preservation
- Historic Preservation
- Community Facilities and Services
- Transportation
- Economic Development
- Energy Conservation
- Plan Implementation

Overall Goal

The three municipalities of Pen Argyl, Plainfield Township, and Wind Gap should work together as a single region on planning and implementation matters and on consolidating services whenever possible, to make the area an even greater place in which to live, work, learn, visit, shop and play, with a strong sense of community, scenic preserved open spaces, an attractive historic character, a vibrant economy, and an excellent quality of life.

Natural Resources and Features

Goal: Recognize and respect the area’s natural features and environmentally sensitive areas.

- Objectives:*
- Minimize flood damage, protect wetlands, and prevent adverse impacts of steep slope development.
 - Protect and manage woodland resources.
 - Protect significant natural features including special geological resources, rare plant communities, and critical wildlife habitats.
 - Protect the amounts and quality of groundwater and creek waters.
 - Direct growth away from environmentally sensitive areas and significant natural features.
 - Strengthen zoning and subdivision regulations to conserve slopes greater than 25 percent, wooded areas, stream buffers, and flood prone lands.
 - Permanently preserve natural areas within residential developments.
 - Develop a linked network of greenways and open spaces.
 - Preserve Blue Mountain.

Land Use

Goal: Provide for orderly patterns and intensities of development, and enhance compatibility between land uses.

- Objectives:*
- Direct urban development away from areas recommended for natural resource protection and farmland preservation.
-

- Promote most growth in areas near existing development, where adequate infrastructure exists or can be provided.
- Maintain an attractive rural character in the rural areas of Plainfield Township.
- Direct most development to locations that can be efficiently served by public water and sewer services in order to minimize the total amount of land consumed by development and to direct most housing away from agricultural areas.
- Provide an adequate choice of shopping opportunities at convenient locations.
- Direct new commercial uses to selected locations that allow for safe and efficient traffic access, as opposed to long strip commercial development along major highways with individual driveways.
- Strengthen older commercial areas and reuse or redevelop older industrial sites.
- Promote pedestrian-friendly “human scale” development that is not overly dense and that includes substantial landscaping.
- Enhance the visual attractiveness of the area, emphasizing the most visible corridors, including street trees and landscaping, and preserving creek valleys and the scenic Blue Mountain.
- Encourage appropriate reuse and historic rehabilitation of older buildings, as well as new construction that is consistent with historic surroundings.
- Encourage neighborhood revitalization and provide services to improve residential living environments.
- Ensure that obligations are met under state law to provide opportunities for all types of housing and all legitimate types of land uses.
- Encourage residential developers to use “neotraditional” neighborhood design and to permanently preserve open space within development tracts.
- Encourage infill of existing residential areas to minimize sprawl.
- Ensure the compatibility of adjacent land uses, particularly:
 - Between residential areas and adjacent commercial or industrial areas.
 - Along municipal borders.

Housing

Goal: Provide opportunities for a variety of housing types and price ranges, and ensure that dwelling units are well maintained.

- Objectives:*
- Encourage a variety of detached and attached housing types using environmentally sensitive layouts and designs.
 - Minimize concentrations of rental units, in the form of either multifamily buildings or single-family conversions.
 - Strengthen residential neighborhoods by encouraging home ownership, rehabilitating older buildings, and avoiding incompatible development.
 - Encourage preservation and rehabilitation of older housing stock, and aggressively pursue grant assistance for housing rehabilitation activities.
 - Work to ensure that the rate of new residential development does not exceed the growth of public services (water, sewer, schools, recreation) and finances.
 - Recognize the public obligation to provide housing opportunities for disadvantaged segments of the population, including the elderly, the disabled, and the mentally challenged.

Agricultural Preservation

Goal: Maintain the vitality of the area's agriculture and agricultural lands.

- Objectives:*
- Encourage farmers to continue farming and, if they must sell, encourage them to consider a two-step sale, first by selling their easements to the County Agricultural Preservation Program, then by selling their eased farm to another farmer.
 - Preserve farming by considering a variety of techniques, including effective agricultural zoning, agricultural security areas, purchase of agricultural easements, preferential tax assessments, and a system of Transferable Development Rights (TDR).
 - Minimize non-farm activities near agricultural areas to reduce the potential for conflicts with normal farming operations.
 - Maintain agricultural activities in large portions of Plainfield.
-

- Keep public water and sewer line extensions out of prime agricultural areas.
- Provide for a range of appropriate supplemental income opportunities in agricultural areas.
- Support the continuation of small-scale farming by encouraging “farmettes” of 10 acres or more.
- Increase the economic viability of farming in Plainfield Township.

Historic Preservation

Goal: Preserve and enhance historic resources, and raise public awareness about the area’s unique heritage.

- Objectives:*
- Support the efforts of local and county historic preservation groups to continue identifying and protecting historic resources.
 - Give high priority in restoration programs to historic structures and sites that have educational importance or value as tourist attractions and to sites that can be restored by the private sector.
 - Avoid projects and developments that adversely affect historic resources.

Community Facilities and Services

Goal: Provide adequate community facilities and services to accommodate future growth without endangering health or environmental quality.

- Objectives:*
- Provide high-quality community facilities and services for current and future development in the most cost-efficient manner.
 - Increase the efficiency and effectiveness of governmental operations by consolidating municipal and emergency services whenever possible, such as police, fire, ambulance/rescue, recreation, maintenance, and administration.
 - Utilize schools as much as possible for recreation and community activities.
 - Provide environmentally sound sewage disposal for all persons.

- Provide economical, efficient sewage disposal for existing and future development.
- Provide a safe, reliable water supply for all persons.
- Provide economical, efficient water service with existing and future development.
- Manage the rate, volume, and quality of storm runoff for public safety and welfare and the protection of property and the environment.
- Assure environmentally responsible and economical solid waste disposal.
- Preserve sufficient open space and important natural features.
- Provide and maintain adequate land for scenic open space and recreation facilities to meet the recreation needs of area residents.
- Provide adequate government administration and other municipal facilities and services.
- Strengthen the school/community link by developing a relationship with the Pen Argyl Area School District which involves sharing information (as needed), serving on the advisory committees (as appropriate), and maintaining strong communications.

Transportation

Goal: Provide for the safe, efficient movement of people and goods.

- Objectives:*
- Provide a safe, well-maintained road network that facilitates the movement of people, goods, and services.
 - Provide good access to major traffic generators and planned development.
 - Make cost-effective improvements to congested and unsafe road segments, in cooperation with PennDOT and adjacent landowners/developers.
 - Use traffic calming techniques to minimize traffic impacts on residential areas.
 - Encourage alternative transportation modes, including carpooling, public transportation, and bicycling.
-

- Work with PennDOT and local developers to ensure that local roads and intersections are safe and able to accommodate current and projected traffic volumes.
- Acquire or retain abandoned rail rights-of-way to meet recreation, transportation, and utility needs.
- Design new streets in subdivisions to:
 - Blend with the topography of the site.
 - Provide adequate connections with the street system in neighboring developments and municipalities.
 - Allow for the development of vacant areas without creating landlocked parcels of land.
- Use tools such as the Official Map and impact fee ordinances to enhance transportation and traffic movement in the area.

Economic Development

Goal: Provide a strong diversified economy that generates stability, produces needed goods and services, creates sufficient tax revenues, and offers employment opportunities with adequate incomes for residents.

- Objectives:*
- Retain and attract businesses in designated business areas.
 - Provide for the adaptive reuse of vacant and underutilized business properties.
 - Preserve farming as an important economic activity.
 - Identify select areas for new economic development opportunities in appropriate areas where water and sewer service, and other infrastructure exists or can be feasibly provided.
 - Promote tourism that is built upon the area's heritage, arts and culture, and recreational assets.

Energy Conservation

Goal: Promote energy conservation and minimize energy waste.

- Objectives:*
- Use and promote energy conservation techniques.

- Prepare an Energy Conservation Plan to use as a guide for encouraging the reduction of energy costs and the preservation of energy resources.
- Utilize the existing and future capabilities of the Green Knight Energy Center.

Plan Implementation

Goal: Implement the area comprehensive plan and use the plan to guide municipal decisions.

- Objectives:*
- Update municipal development regulations to carry out the plan, and periodically update the plan and regulations as needed.
 - Continually work to put the plan into action through a program of updated planning and many short-term actions within a long-range perspective.
 - Promote substantial citizen input by heavily publicizing community issues and encouraging volunteer efforts to improve the community.
 - Maximize communications, coordination, and cooperative efforts between the municipalities, the school district, adjacent municipalities, the county, the Lehigh Valley Planning Commission, and other agencies and organizations.
 - Work cooperatively and aggressively to secure grants for the benefit of the region as a single entity.

FUTURE LAND USE

The land use section of the comprehensive plan describes the most appropriate types and densities of land uses that should be accommodated in the Pen Argyl—Plainfield—Wind Gap region. The land use plan maps (Map 2.1 and Map 2.2) and text describe the recommended future land use for the area. The land use section also:

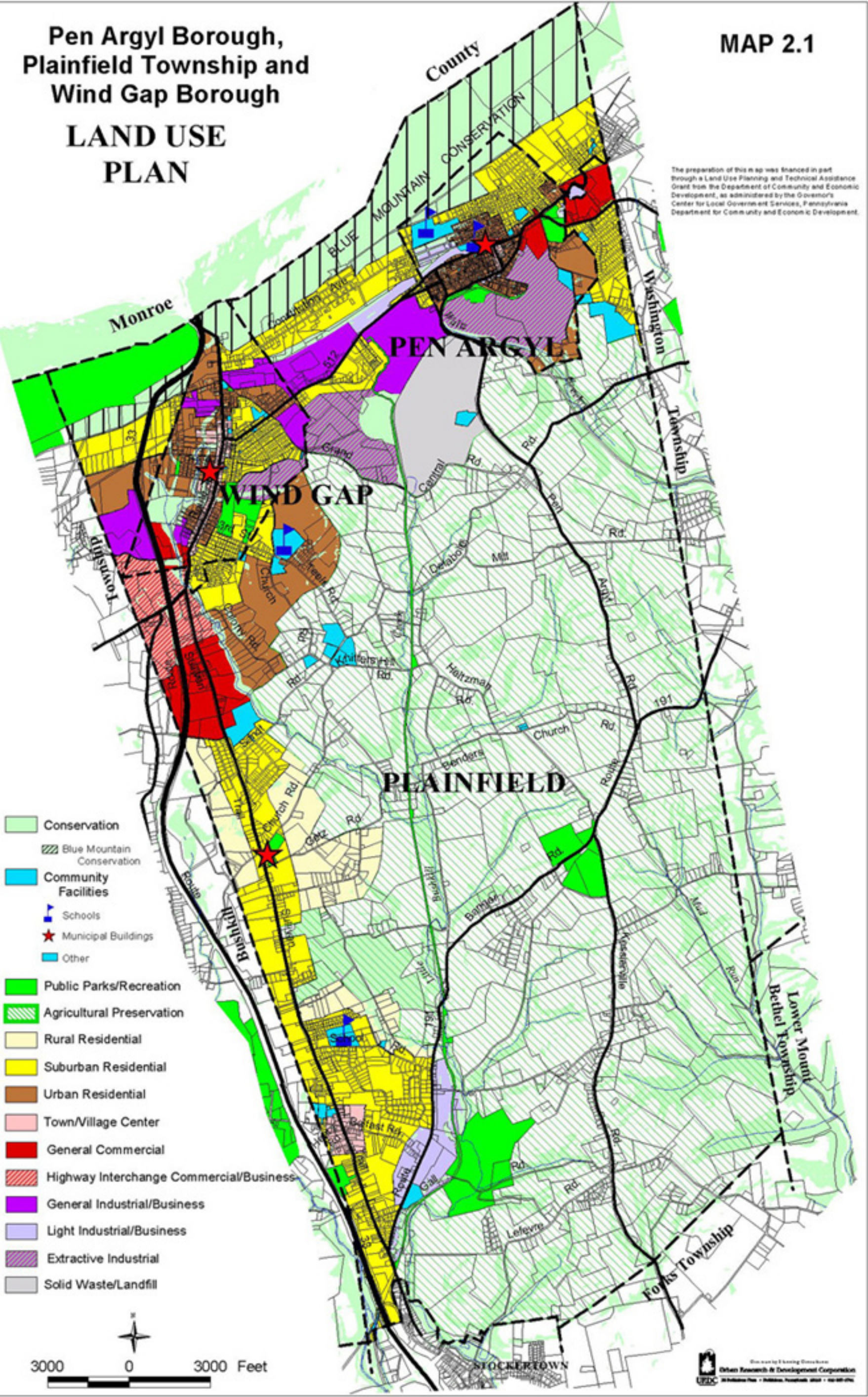
- Suggests design guidelines for future nonresidential development.
 - Identifies major economic development opportunity areas.
 - Suggests ways to strengthen and enhance the older business areas of Wind Gap and Pen Argyl.
 - Recommends a four-step process for subdivision and land development which highlights open space and land preservation.
 - Recommends a program of Transferable Development Rights (TDR).
-

Pen Argyl Borough, Plainfield Township and Wind Gap Borough

LAND USE PLAN

MAP 2.1

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



- Conservation
- Blue Mountain Conservation
- Community Facilities
- Schools
- Municipal Buildings
- Other
- Public Parks/Recreation
- Agricultural Preservation
- Rural Residential
- Suburban Residential
- Urban Residential
- Town/Village Center
- General Commercial
- Highway Interchange Commercial/Business
- General Industrial/Business
- Light Industrial/Business
- Extractive Industrial
- Solid Waste/Landfill

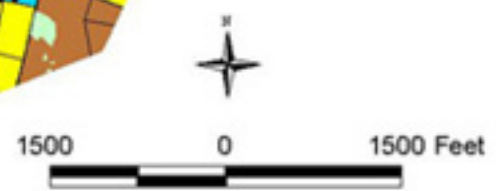
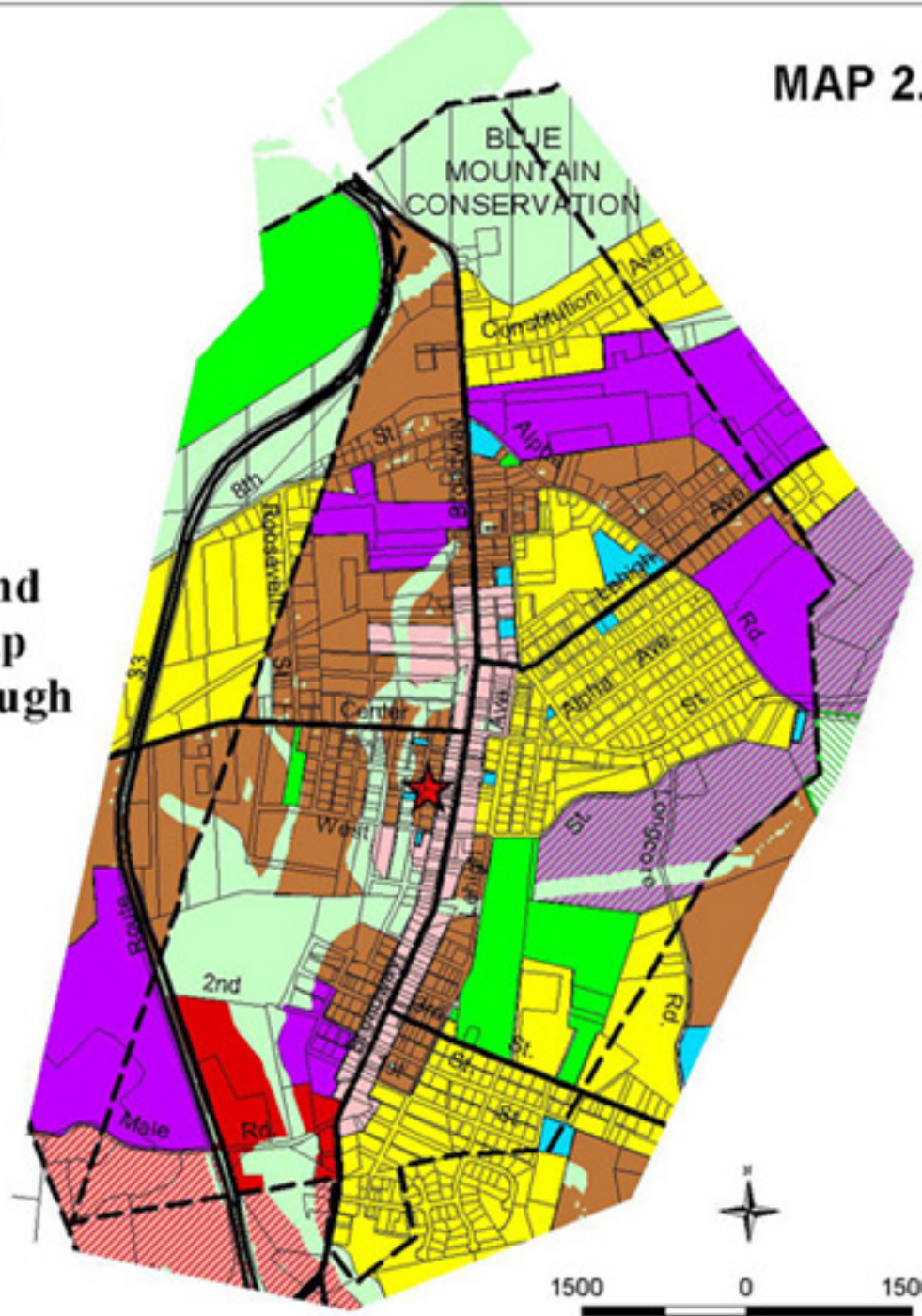


**Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough**

**LAND USE
PLAN**

MAP 2.2

**Wind
Gap
Borough**



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



- Conservation
- Blue Mountain Conservation
- Community Facilities
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- Town/Village Center
- General Commercial
- Highway Interchange Commercial/Business
- General Industrial/Business
- Light Industrial/Business
- Extractive Industrial
- Solid Waste/Landfill



**Pen Argyl
Borough**

- Offers recommendations for special land use circumstances, such as:
 - 1) Cluster and Related Conservation Zoning Techniques.
 - 2) Planned Residential Developments (PRDs).
 - 3) Neo-Traditional Development and Traditional Neighborhood Developments.
 - 4) Agricultural Preservation.

Land Use Categories

The following section describes the categories of land use for the land use portion of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*. The land use plan maps (Maps 2.1 and 2.2) designate areas proposed for the following categories of land use:

- Conservation
- Community Facilities
- Public Parks / Recreation
- Agricultural Preservation
- Rural Residential
- Suburban Residential
- Urban Residential
- Town / Village Center
- General Commercial
- Highway Interchange Commercial / Business
- General Industrial / Business
- Light Industrial / Business
- Extractive Industrial
- Solid Waste / Landfill

Conservation - These *Conservation* areas include: creeks and streams, flood plains, wetlands, steep slopes over 25%, and identified natural areas including the scenic Blue Mountain. Together, these areas represent the natural open space system which should be conserved. They can also serve as key components to existing and future greenways. These natural features should be preserved in private, semipublic, or public open space. Thick natural vegetation should be preserved or planted along creeks to filter out pollutants from runoff, avoid erosion and maintain good water quality.

Community Facilities - The *Community Facilities* category includes: various community facilities, such as public schools, municipal buildings, fire stations and libraries.

Public Parks / Recreation - The *Public Parks and Recreation* category includes existing and proposed public parks and recreation areas, and state game land.

Agricultural Preservation - The extensive *Agricultural Preservation* area, which represents approximately one-half of Plainfield Township's total land area, is characterized by its rural and working-farm setting, forested areas, limited development, and lack of public water and sewer. It recognizes the importance of preserving existing farms and agriculture activities. These are areas: where farmers should be encouraged to continue farming; where farm-related businesses should be permitted; where emphasis should be given to the purchase of development rights; where assistance

and incentives (technical and financial) should be offered to farmers; and where development should be discouraged.

Efforts to sell development rights to permanently preserve farmland should be concentrated in the Agricultural Preservation areas. The areas can also allow more intensive livestock and poultry operations than in residential areas.

Effective agricultural zoning should be used in this area. Agricultural conservation zoning works throughout Lancaster County and many other parts of the state to limit the number of homes allowed on a tract of land. In some areas homes are limited to no more than 10% of the tract. The number of homes should be based upon a fixed ratio (such as an average of 1 home per 10 acres), or should follow a "sliding scale" (such as 1 new home on a tract of less than 10 acres, 2 new homes on a tract of 11 to 25 acres, 3 new homes on a tract of 26 to 50 acres, etc.).

In addition to limiting the number of homes on a tract, dwellings should be properly located to minimize conflicts with farming operations on the tract and to avoid conflicts with neighboring farms. Most townships also limit the amount of prime agricultural soils that can be consumed by a new house. For example, some townships say a new house cannot include more than 2 acres of prime agricultural soils. However, a house could include a 10-acre lot if most of the lot was woodland.

Development rights should be transferred from but not to the Agricultural Preservation area. Incentives should be provided to promote the preservation of land in the areas through TDR. For example, for every home that would have been allowed on an Agricultural Preservation tract, the landowner should be allowed to sell the rights to a developer to build additional homes in a more appropriate area of the municipality.

Rural Residential - *Rural Residential* areas provide for single family homes in rural areas where public sewer and water service is not planned for the future. Most of the Rural Residential areas will not be served by public sewage systems in the foreseeable future. Roads, soils, and slopes in the Rural Residential areas are often not suitable to serve intensive development.

The use of Open Space Development should be strongly encouraged, including strong incentives to promote the permanent preservation of substantial portions of a tract in open space. Conservation easements should be used to preserve the open space. Homes should be clustered on the most suitable portions of a site, and important natural areas should be planned for preservation before any lot lines are proposed.

A variety of options should be used to promote open space preservation, using incentives and disincentives to encourage developers to permanently preserve open space. The percentage of open space, if set too high, could be challenged. The following options could be appropriate in different areas of the region:

- A 2-acre minimum lot size could be required if open space is not provided. The parcel could be divided into 1-acre lots if 40 percent of the tract were preserved in open space.
- A 1.5-acre minimum lot size could be required, which could be reduced to 1 acre if 30 percent of the tract were preserved in open space.
- In all cases, a lot size of at least one acre should be required whenever public sewer service is not provided.

In some cases, the Open Space Development provisions should promote the preservation of farmland on large tracts. Where farmland preservation is not feasible and a public park is not desired, then alternative open space uses would be appropriate, such as Christmas tree farms, plant nurseries, hayfields, golf courses, and horseback riding academies.

TDRs should be promoted as an option to allow development to be shifted from locations where preservation is desired to allow a higher density on other tracts that are better suited for development. Through this option, land in the Agricultural Preservation, Rural Residential, or Conservation areas would be permanently preserved by a conservation easement, with a developer of another site paying the owner of the preserved land the value of the easement.

Suburban Residential - *Suburban Residential* areas provide for single family detached homes at densities of approximately 1 to 4 dwelling units per acre depending upon the availability of public water and sewer service. These areas are already oriented toward single family residential development and are located in areas where opportunities for public sewers and/or community water service exists. In areas of Plainfield Township with community water and public sewage services, a ¼-acre lot size would be appropriate without open space preservation.

Urban Residential - *Urban Residential* areas provide for single family homes and multi family housing at densities of 5 dwelling units per acre and higher depending upon the housing type. Community water and public sewer systems are necessary to serve dwellings at the proposed densities. Urban Residential areas are particularly important to meet obligations under state law to offer opportunities for all types of housing.

Town / Village Center - The *Town / Village Center* areas provide for retail stores, offices, personal services, day care centers, exercise clubs, and similar uses. The heaviest commercial uses that are likely to spur demolition or create nuisances for neighbors should be discouraged, including vehicle sales, auto repair shops, fast food restaurants with drive-through service, and adult uses. Town / Village Center areas are also suitable for a mix of housing types, including upper story apartments above a commercial business.

Commercial and Industrial - Close-to-home commercial and industrial opportunities are not only convenient, but they also provide jobs and enhance the areas tax base. Commercial and industrial land use categories include:

- **General Commercial** - which provides for a wide variety of retail and other commercial uses;
- **Highway Interchange Commercial / Business** - which is a special area for highway interchange oriented commercial and business uses;
- **General Industrial/Business** - which provides for a wide variety of industrial and business uses;
- **Light Industrial / Business** - which provides for light industrial and business uses and recognizes existing and proposed planned industrial / business parks;
- **Extractive Industrial** - which provides for mineral extraction and general industrial uses, and recognizes other past and existing mineral extraction activity areas; and
- **Solid Waste / Landfill** - The *Solid Waste* category reflects the large area of the Grand Central Sanitary Landfill.

Residential Development Considerations

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* endorses several concepts regarding residential development which deserve additional explanation. Some of the concepts, such as open space development, are explained in greater detail in later sections of the plan. The following section provides information on two concepts:

- Planned Residential Development
- Single Family Cluster Development

Planned Residential Development

The plan endorses the concept of planned residential development (PRD) on residentially planned land where a developer would be free to build a variety of housing types—single family detached, duplex (twin), townhouse, or apartments. The PRD concept provides the flexibility to choose dwelling unit types that meet market demands and to fit the housing types to the characteristics of the site. The plan recommends that all PRDs be required to have public sewer and water service.

Adjoining land uses must be considered when designing a PRD. If single family homes already exist, the PRD should include single family homes next to single family homes. Other housing types should be planned next to more densely developed adjacent land uses. Uses can be mixed to compatibly match up with adjoining land uses.

PRDs offer several advantages from conventional residential development:

- Housing which meets market demands.
- Good land planning.
- Compatibility between existing and proposed land uses.
- Preservation of unique natural resources to insure open space within the development.

The report *Planned Residential Developments — The Lehigh Valley Experience* (Joint Planning Commission Lehigh-Northampton Counties [now Lehigh Valley Planning Commission], 1994) offers the following conclusions regarding PRDs in the Lehigh Valley:

“First, the use of clustering allows the amassing of significant areas of common open space. The amount of common space associated with PRDs exceeds the amount of open space achieved through typical subdivision ordinance requirements. The integration of the common open space in the design assures that it is close to homeowners. Secondly, the mixture of housing types works towards meeting varied housing needs and promoting social integration.

“Although PRDs may not be as advantageous as they were thought to be 20 years ago, they remain as a valid development form.”

The report also provides the following recommendations and comments to make PRDs more workable in the Lehigh Valley:

- **Minimum tract size requirements should be reduced in many cases**—PRDs do not need to be 50, 75, or 100 acres in order to work. Smaller tract sizes are also suitable for the PRD concept. Reduced tract size requirements will allow smaller projects which are more in line with the scale of development in the Lehigh Valley.
- **PRD developers should be more sensitive to the nature of the Lehigh Valley housing market**—Projects need to be tailored to the housing type desired, buildout rate potential and scale of the Lehigh Valley market. Project sizes and housing type mixes which may be suitable in larger markets may not be appropriate here.
- **Developers, municipalities, and potential homeowners should be educated about the feasibility of homeowner’s associations**—Resistance to homeowner’s associations has been a barrier to PRD development. A series of interviews about the homeowner’s associations operating in existing PRDs in the Lehigh Valley revealed only one instance where the association was not working well. The concerns about homeowner’s associations are not substantiated by the Lehigh Valley experience. The resistance to homeowner’s associations needs to be overcome by educating people about the existing positive record.
- **PRD regulations need to be made less burdensome on applicants**—The additional requirements made in PRD submissions discourage applications when more straightforward applica-

tions are possible under conventional regulations. The PRD approval process should be streamlined as much as possible without jeopardizing public objectives.

- **PRD regulations should be examined to assure that they advance public objectives**—Poor regulations produce developments which do not meet public objectives, whether through unusable open space, inappropriate commercial development or poor housing mixes. Existing ordinances warrant review.

Single Family Cluster Development

The plan endorses the general concept of clustering single family homes on lots smaller than permitted in a conventional single family subdivision, provided the land saved by going to smaller lots is put into open space (either private or public). A cluster subdivision sites houses on smaller parcels of land while the additional land that would have been allocated to individual lots is converted to common shared open space for the subdivision residents. Typically, road frontage, lot size, setbacks, and other traditional subdivision regulations are defined to permit the developer to preserve ecologically sensitive areas, historical sites, or other unique characteristics of the land being subdivided and provide common open space.

Major advantages include preserving sensitive areas and providing open space for common use of residents. Another advantage is that developers often experience less expensive site development costs involving the construction of roads and water/sewer infrastructure. These reduced costs often offset the costs of development of amenities such as trails in the open space areas.

Clustering as a land preservation technique can be enhanced by:

- Having the open space interconnect the entire development.
- Having areas large enough for recreation facilities.

The basic principle of clustering homes on smaller lots and preservation of the resulting open space is a key element of open space preservation in new development, conservation design and conservation subdivisions which are described in the following sections.

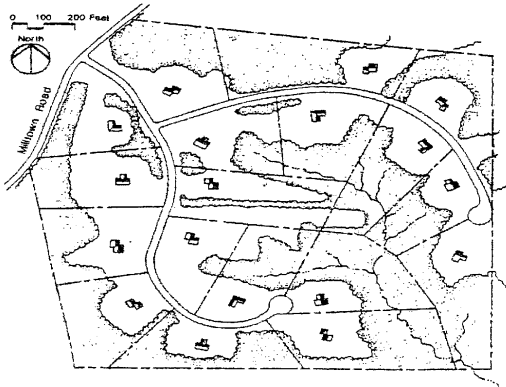
Open Space Preservation in New Development (Open Space Developments)

Open space in new development should be preserved by adopting an open space development approach to design. Throughout the nation, permanent open spaces are an increasingly important part of new development. The concept has been promoted by both the Natural Lands Trust (NLT) and the Pennsylvania Department of Conservation and Natural Resources (DCNR).

Attractive incentives will insure that large open tracts of land in the township are developed with substantial (35–70 percent) areas of preserved open space instead of traditional, "cookie-cutter" lots.

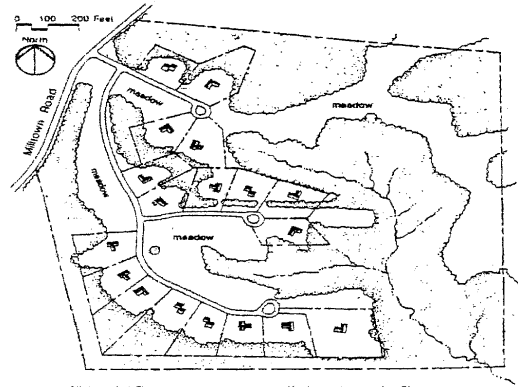
Proper incentives can allow for development and still conserve the important natural, scenic, and historic features of a site. The NLT has refined and specifically identified a process called Conservation Design development. By comparison, conventional subdivisions typically preserve little or no open space because every lot is typically the same size and shape, regardless of the features of the land. The recommended “open space development” approach is based on the key features of Conservation Design as developed by the NLT (Figure 2.1).

Figure 2.1 Conservation Subdivision Options

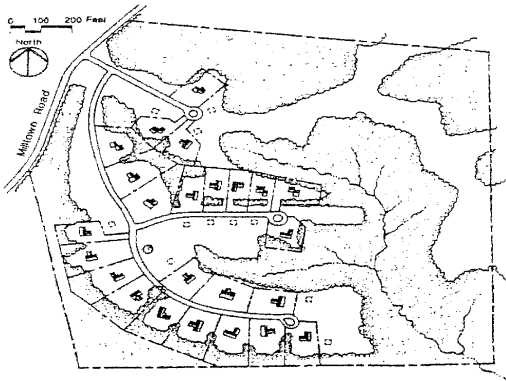


YIELD PLAN

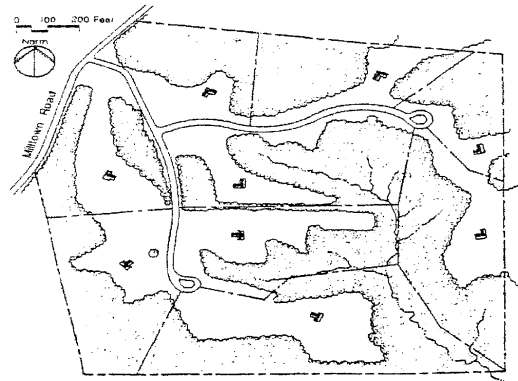
The kind of subdivision most frequently created in Pennsylvania is the type which blankets the development parcel with houselots, and which pays little if any attention to designing around the special features of the property. In this example, the house placement avoids the primary conservation areas, but disregards the secondary conservation features. However, such a sketch can provide a useful estimate of a site's capacity to accommodate new houses at the base density allowed under zoning—and is therefore known as a "Yield Plan."



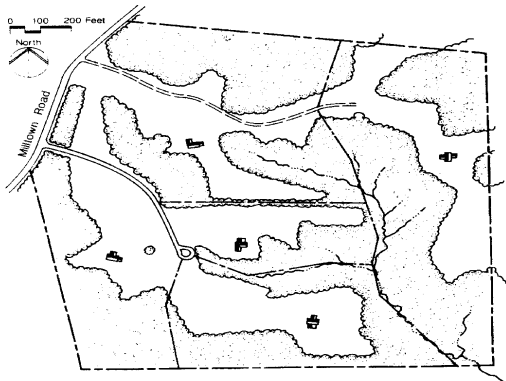
OPTION 1
Density-neutral with Pre-existing Zoning
18 lots
Lot Size Range: 20,000 to 40,000 sq. ft.
50% undivided open space



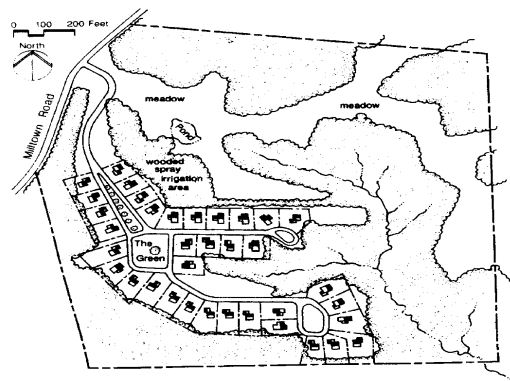
OPTION 2
Enhanced Conservation and Density
24 Lots
Lot Size Range: 12,000 to 24,000 sq. ft.
60% undivided open space



OPTION 3
50% Density Reduction
9 Lots
Typical Lot Size: 160,000 sq. ft. (4 acres)
Estate Lots



OPTION 4
Country Properties
5 Lots
Maximum Density: 10 acres per principal dwelling
70% density reduction



OPTION 5
Hamlet or Village
36 Lots
Lot Size Range: 6,000 to 12,000 sq. ft.
70% undivided open space

Based upon the work of the NLT, open space development offers the following major advantages:

- *Important natural features can be preserved.* Open space developments include standards that direct buildings away from steep slopes, wetlands, waterways, and other important natural features. As a result, homes are placed on portions of the tract that are most environmentally suitable for development instead of being evenly spread across the land. Large contiguous areas can remain in woods and other natural vegetation, which are important as wildlife corridors. Thick natural vegetation can be preserved along waterways, which is essential to filter out eroded soil and other pollutants from storm water runoff. Creekside vegetation also maintains high quality fishing habitats and encourages recharge into the groundwater. In comparison, conventional lots often result in mowed grass—a “mono-culture” that does not have the same environmental benefits.
 - *Scenic features can be preserved.* Open space developments place homes on less visible portions of a tract while maintaining scenic views. For example, many conservation subdivisions setback homes from main through-roads and limit placement of homes on major ridge lines. As a result, the primary angle of vision along major roads is filled with green space. Mature woods can be preserved in locations that hide views of development. Open space also provides visual relief from seeing continuous development. Furthermore, storm water runoff can also be managed in a more attractive manner than deep, man-made channels and detention basins.
 - *Recreational opportunities can be increased.* Open space developments typically include attractive areas for walking, jogging, cross-country skiing, and nature study. In some cases, active recreation facilities can be included. Well-used open spaces also increase interaction among neighbors.
 - *Developers can achieve lower costs* for grading, lengths of roads, lengths of utilities and other improvements.
 - Developers may also be able to save time and money by avoiding wetland alterations and waterway crossings.
 - Open space developments provide the flexibility in layout to avoid building homes on steep slopes, which increases costs. Avoiding steep slopes can also reduce the need for blasting.
 - Flexibility in building placement also simplifies the task of finding suitable sites for septic systems.
 - *Municipalities can save on maintenance costs.* Shorter lengths of roads, utilities, and other improvements mean lower maintenance costs. Open space developments can also result in roads being placed on more modest slopes, making maintenance and snow plowing easier.
 - *Developers can often achieve higher sales prices.* Adjacent open space is becoming an increasingly effective selling point for developments. Developers can often receive a premium price for lots adjacent to or overlooking preserved open space. Trails and other open space
-

amenities can also spur sales. Studies have also shown that homes near preserved open space are likely to increase in value faster than other homes.

- *Reliable public water and sewer services become economically feasible.* Typically, lot sizes of 2 acres or larger cannot be served by public water and sewer services because of the long lengths of pipe between connections. Clustering homes on a tract, as in open space development, often makes public water and sewer services possible and/or necessary.

Community water and public sewage services are more reliable than individual wells and septic systems. Central sewer service also avoids the threat of groundwater contamination from malfunctioning septic systems. Community water service avoids the risks of well water contamination from various sources.

Open space development can also allow homes to be “hidden in the woods” and in clusters that resemble a rural village, while allowing most of the farmland to be preserved. The following major policies should be emphasized to encourage open space development:

Incentives and Disincentives for Open Space Preservation

The financial risk of homebuilding requires successful developers to be conservative in providing new products, usually building traditionally successful homes rather than offering new concepts. In addition, developers may feel (often inaccurately) that the homes on larger lots may have a higher market value than homes on smaller lots with open space. Therefore, strong incentives, such as significant density bonuses, are needed for open space preservation. A community should be willing to accept a modest increase in the number of dwelling units in return for substantial open space preservation.

Open space can be preserved in two ways:

- Through an open space development process provided as an option for major subdivisions.
- Through an open space requirement for all subdivisions.

Open Space Development Process

An open space development process can be established which is no more burdensome or time-consuming than the conventional subdivision process. Where practical, the process to gain approval for a desirable type of development should be easier than the process for a conventional subdivision. Open space development standards should not be made overly restrictive. Desired uses should be permitted by right. Excessively detailed or extensive standards may not allow enough flexibility for a good design. If standards hinder a developer’s marketing plan or cause excessive costs, the developer may choose to do a conventional subdivision.

Required Open Space Locations and Improvements

Required open space should be well-located and improved to serve important public functions. Open space can serve many functions. In many cases, mature woods, steep slopes, and creek valleys should simply be preserved in a natural state. In other cases, the open spaces may be intended for active recreation. In still other cases, trees should be planted in the open spaces and trails should be developed.

Establishing a purpose avoids allowing the open space to be simply the land that is left over after the most economical set of lots and roads are laid out. Valid public purposes for open space include:

- Preserving land for agriculture, hayfields, orchards, and tree farms.
- Preserving environmentally sensitive areas, such as creek valleys and concentrations of mature woods.
- Managing storm water in a more attractive and naturalistic manner that protects water quality, as opposed to engineered channels and traditional fenced-in detention basins.
- Providing usable recreation areas and important links in a trail system.
- Preserving large contiguous swaths of open space in visible locations that maintain a feeling of open space and that provide a visual relief between developments. At best, some open space would be preserved along exterior roads.

In most cases, at least half of the required open space should be in one contiguous area. Isolated areas (such as less than one acre) and narrow strips of land (such as less than 100 feet wide) should not be counted as open space. However, narrow stretches which truly serve as part of a regional trail system can be suitable as open space. Detention basins should not be considered open space unless designed as a major scenic asset (such as a natural appearing pond) or are clearly suitable for recreation. Roads and parking should not count as open space, even if the parking is intended to serve recreation uses. Narrow buffers should not count towards open space, but wider buffers may be appropriate. Establishing a maximum percentage of open space that can be covered by impervious surfaces may also be appropriate.

To count towards the required open space, land should meet at least one of the following qualities:

- Landscaped in trees, shrubs, and other attractive vegetation.
 - Maintained in agricultural uses, which may include a tree farm.
 - Preserved in woods or natural wetlands vegetation.
 - Not used for commercial recreation, other than a golf course.
 - Developed as recreational facilities, not including buildings (other than pavilions).
-

Open space should be interconnected with common open space areas on abutting parcels where possible, including provisions for public trails to link trail systems within the municipalities.

Four Step Process for Major Subdivisions

The following recommended process is generally based upon the Growing Greener program developed by the NLT, which promotes a four-step design process emphasizing land conservation principles (Figure 2.2). The concept has been simplified for presentation in the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*. Plainfield Township should consider incorporating the process into local development regulations and procedures. The steps should be part of the sketch plan stage, before any detailed engineering is completed. Mapping should include not only the area proposed for immediate development, but also any future phases of development plus areas immediately adjacent to the development site on other lots.

Step 1. Identify lands that should be preserved.

Map the areas most worthy of preservation, including wetlands, flood-prone areas, creek valleys, and very steeply sloped lands. Other features important for conservation should also be mapped, such as woodlands, tree lines, scenic views, historic buildings, and prime farmland. Based upon the mapping of natural features and other important features of the land, a site walk, and discussions with township officials, the most important areas for preservation will be identified.

Step 2. Locate home sites.

After preserved land is identified, the most appropriate locations for development can be chosen. The areas with the fewest important natural, scenic and historic features should be considered the “Potential Development Area.” The zoning ordinance should establish a maximum overall density for the site but should not include overly strict lot requirements that would prevent reasonable flexibility in the site layout. Home sites should be chosen to avoid the important features mapped in the first step. Home sites should also take advantage of scenic views within the tract.

Step 3. Locate roads and trails.

After the home sites are selected, a road system should be designed to serve the homes. A trail system should also provide links between homes and to destinations outside of the tract.

Step 4. Draw in the lot lines.

The last sketch plan step is to draw in lot lines. In conventional development, with traditional lot requirements, lot lines are often drawn as the first step, before any consideration of natural features of the site.

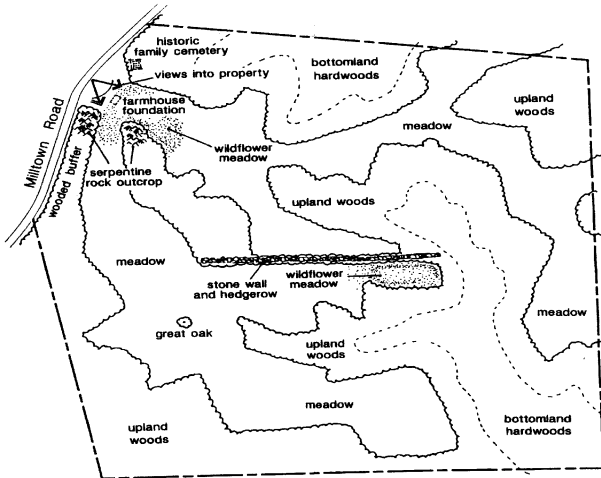
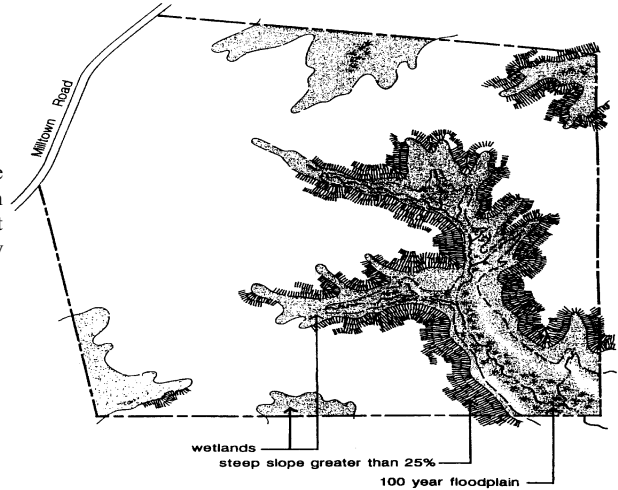
Figure 2.2 Four-Step Process for Major Subdivisions

Step 1—Identify Potential Development Areas.

1a. Primary Conservation Areas.

An Existing Resources and Site Analysis Map should accurately show the locations of “primary conservation areas,” or areas where development can cause a safety hazard to the occupants and to the community. Development of many primary conservation areas is usually prohibited or severely restricted under local, state, and federal regulations. Examples include:

- Wetlands.
- 100-year floodplain.
- Slopes of 15–25 percent.
- Slopes over 25 percent.



1b. Secondary Conservation Areas

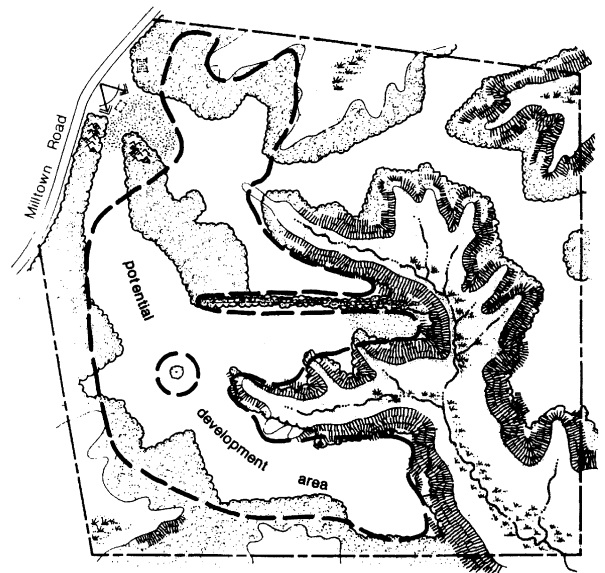
Other important resources, known as secondary conservation areas, are often not protected by codes and ordinances but add significantly to property value and neighborhood character. Secondary conservation areas, which should be added to the map, include:

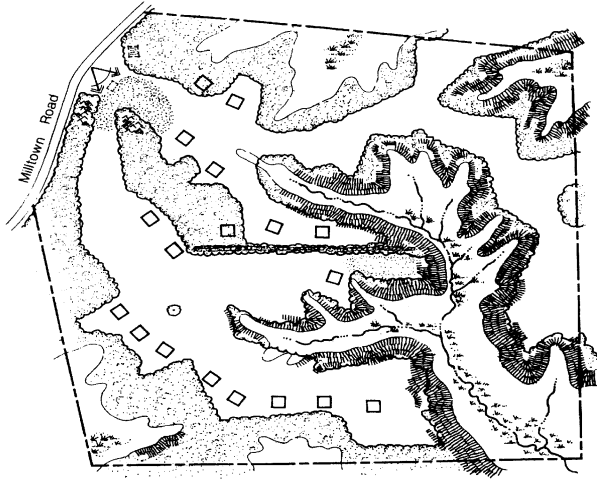
- Woodlands.
- Tree lines.
- Large specimen trees over 18" in trunk diameter.
- Scenic views from inside the site.
- Ridge lines.
- Scenic views from existing streets and trails.

The planning commission may require the identification of scenic views beyond those identified by the applicant.

1c. Potential Development Area

Based upon consideration of the Existing Features Map and the primary and secondary conservation areas, areas best suited for the majority of the development on the tract can be identified.





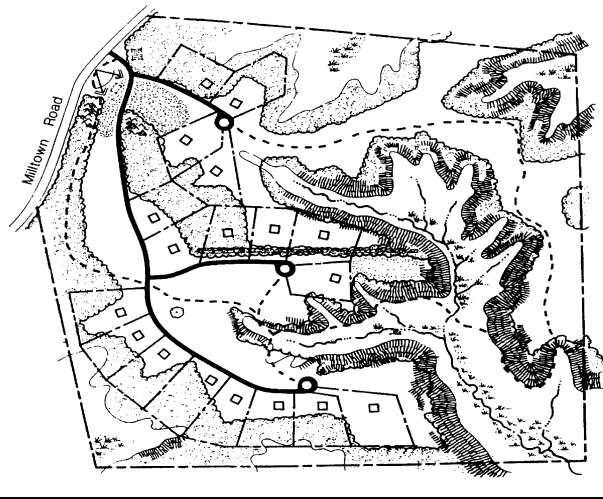
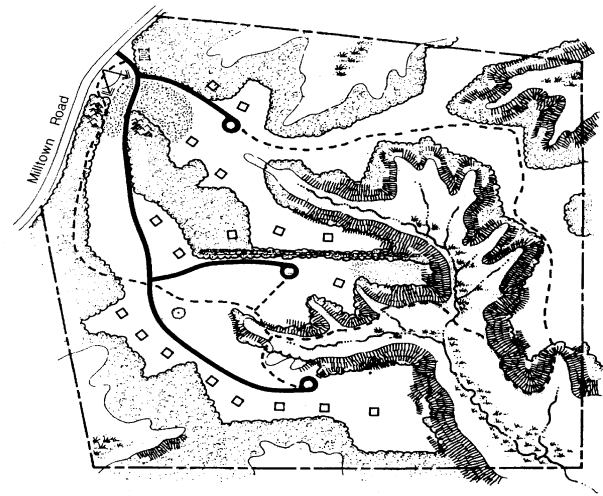
Step 2—Locating House Sites.

New homes can now be located respecting the primary and secondary conservation areas on the tract. On-lot septic system suitability will influence home locations when septic systems are used. Also, some intrusions into the secondary conservation areas may be necessary to allow reasonable uses of the land, provided that such development is carefully located and designed to minimize impacts upon valuable resources and features. Home sites can also be selected to maximize views, including views into the conservation areas. The applicant should provide a written and graphic analysis of how the proposed development will respect and incorporate the important resources of the site and be coordinated with resources, open space/trail corridors, and views on surrounding properties.

While the mapping of existing features required in step 1 must be accurate and to scale, the locations of proposed home sites in step 2 and subsequent information on lot lines, roads, and trails may be at a sketch plan level of detail. However, a more detailed site plan would then be required as part of a formal conditional use application.

Step 3 — Aligning streets and trails.

After buildings have been located in step 2, an efficient street layout should be designed to serve the appropriate building sites. Trails should also be sited which link common open spaces, clusters of homes and other destinations, such as nearby stores, parks and schools. Building sites should be clustered to minimize expensive road crossings over wetlands and creeks.



Step 4 — Drawing in the Lot Lines

After roads and trails are located in step 3, lot lines can be drawn on the site to encompass the proposed building sites, which results in a development concept plan. After the concept plan is prepared, detailed engineering may be completed.

Transfer of Development Rights (TDR)

A voluntary system for the transfer of development rights (TDR) should be established. The Pennsylvania Municipalities Planning Code (MPC) allows municipalities to separate the right to own and use land from the right to develop the land. Municipalities may enact a system which allows the *amount of development* permitted in an area which should be preserved to be moved to an area which is better suited for development. Under a TDR system, a developer would buy development rights by paying the owner of open land to permanently preserve the land and use the purchased rights to build at a higher density than normally allowed in an area more suitable for development. The municipality would approve the development at a higher density at the same time as a conservation easement went into effect to preserve the other land. The preserved land would remain privately owned and can be resold as long as it is never developed.

TDR can also be used in combination with commercial development. For example, for every transferred housing unit, an additional amount of building coverage or impervious coverage could be allowed in a business district.

In general, the TDR process should adhere to the following general steps:

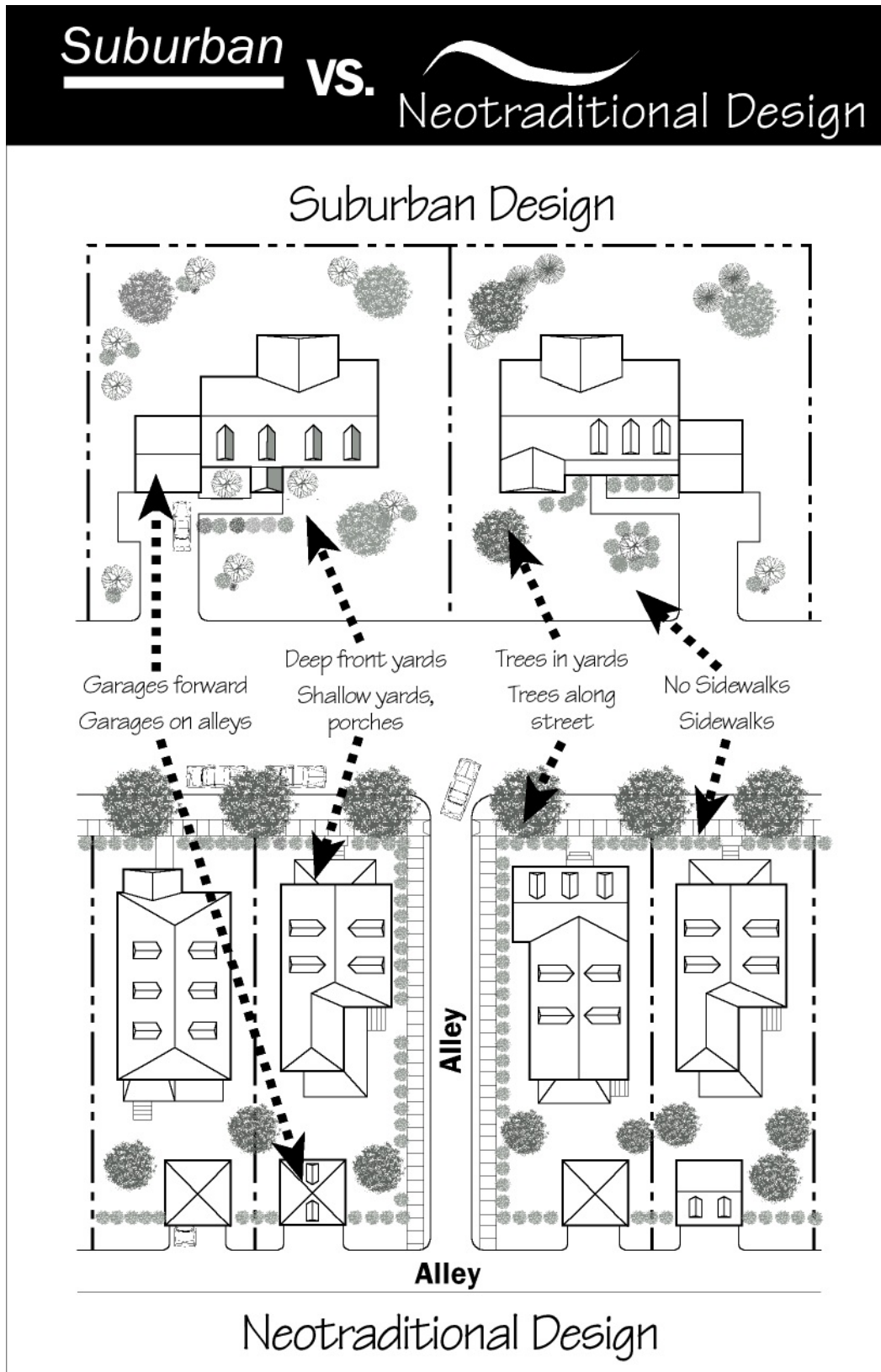
- The applicant must submit a “yield plan,” establishing the number of homes possible on the tract to be preserved, assuming conventional zoning with on-lot well and septic systems. Percolation tests or probes should be required by the township to show that a lot is, in fact, buildable. (A developer might be able to avoid the costs of percolation tests if they assume that a very low density would be possible on the tract that is being preserved.)
- The yield plan determines the number of housing units to be transferred from the preserved site. The TDR system should not result in a substantial increase in the number of homes allowed under conventional development.

Development rights can be transferred from one municipality to another. However, the municipalities must have a written agreement authorizing transfers.

Traditional Neighborhood Development

The three municipalities should encourage forms of Traditional Neighborhood Development (TND), where appropriate to promote the best features of older development in newer development. TND (Figure 2.3) extends the best features of the older areas into new neighborhoods, as illustrated on the following page. Under the state planning code, a municipality is permitted to require some or all TND features in zoning ordinances, or, alternatively, to offer density incentives for providing TND features. Key features of TND include the following:

Figure 2.3



- Street trees should be planted to eventually provide a canopy of shade over streets. Studies show that mature street trees can increase the value of homes up to 10 percent.
- Sidewalks should be provided. There should be an orientation to pedestrians, with an ability to walk or bicycle to stores, schools, and parks.
- A modest density should be encouraged that is similar to the typical development that occurred during the 1930s through 1940s. Moderate density, such as 5–8 homes per acre, should make the best use of available land while avoiding overly dense development and parking problems.
- Whenever practical, parking should be located to the rear or side of buildings so that the front yard can be landscaped. At best, parking and garages would be placed to the rear of lots, with access using alleys. Rear or side parking avoids conflicts between sidewalks and vehicles backing into the street and allows the entire curbside to be available for on-street parking.
- If rear access to garages is not practical, then garages should enter onto the side of homes whenever possible, particularly on corner lots. Any proposed front entrance garages should be designed as inconspicuously as possible. For example, a one-lane garage can pass along the side of a house and then widen to enter a two-car garage that is setback from the front of the house. "Snout" houses, which include a front entrance garage as the home's most prominent feature, should be avoided.
- Buildings should be placed relatively close to the street with front porches to encourage interaction among neighbors. On a corner lot, a side porch can have the same effect. Residents on the porch can also help oversee the neighborhood and report suspicious activity to the police.

Senior Housing Developments

Density bonuses should be considered for developments limited to persons age 55 and older and spouses, with no children under age 18. Density bonuses are logical for senior housing because the typical household of older persons generates less traffic, less need for parking, and less water and sewer usage compared to other types of housing. Housing for older persons also does not generate additional public school students, thereby avoiding significant increases in public education expenses.

Older Residential Neighborhoods

The area has several older developed areas, such as Pen Argyl, Wind Gap, and the Village of the Belfast. Several recommendations of the land use element will help to stabilize and improve older residential neighborhoods. Stable neighborhoods are not only important to provide desirable places to live but also to protect the health of nearby business areas. If the residential areas deteriorate, loitering, vandalism, and other crimes increase, which discourages business activity. On the other hand, vibrant residential areas provide a strong base of customers who will use local stores to meet

shopping and service needs. Many older areas also share a concern that single family houses sold by senior citizens will be converted to rental properties.

Nonresidential Development Considerations

Nonresidential development is extremely important to the Pen Argyl—Plainfield—Wind Gap area in order to provide necessary services and jobs for residents and to help moderate the tax burden on residents. Research shows that residential development requires more in public services, primarily education, than is generated in tax revenue. On the other hand, nonresidential development often generates more tax revenue than is required to provide necessary public services. The land use element identifies appropriate locations for industrial and commercial development in the Pen Argyl—Plainfield—Wind Gap area. Understanding that “quality attracts quality,” municipalities should adopt zoning regulations which encourage high quality in industrial and commercial development.

For example, light industry can be encouraged to create a campus-like atmosphere by requiring the following:

- Most front yard area should be open and landscaped.
- Street trees should be required.
- Landscaped buffer yards should be established adjacent to housing.
- Heavier industrial uses should be prohibited.
- Loading areas should be restricted to rear or internal areas of the site.
- Signs should be carefully limited.

Zoning regulations should be used to accomplish the following purposes for nonresidential development:

- Provide sufficient space, in appropriate locations, to meet current and anticipated future regional needs for light industries, general industries, offices, and related types of commercial uses, in a manner that is fully compatible with any nearby homes.
- Help generate economies of scale that will aid in attracting new industries.
- Carefully control the types of uses and use performance standards to protect the public health and safety and avoid nuisances.
- Maintain an attractive physical environment that will aid in attracting new employers, including extensive landscaping and attractive masonry facades.
- Encourage development to occur within multiple-site business parks instead of scattered individual lots.
- Encourage private deed restriction controls and carefully coordinated interior vehicle access.
- Carefully control the types of uses and use performance standards to prevent excessive traffic in areas where traffic movement is restricted by the existing road system (e.g. one-lane bridges).

The plan also endorses several additional considerations for nonresidential development. The following sections provide additional recommendations in four important topics regarding nonresidential development:

- Planning and designing nonresidential areas
- Interchange areas
- Land use and signage along Sullivan Trail, PA 33, PA 512, and PA 191
- Commercial revitalization

Commercial and Industrial Planning and Design Principles

Where applicable, the following planning and design principles should be used in the planning and design of commercial and industrial developments:

- Recognize and respect the natural limitations of the land.
- Separate access points from existing roadway intersections to minimize congestion.
- Provide a limited number of access points.
- Provide adequate off-street parking and loading areas.
- Establish setback lines between the development and adjoining roadways and residential uses to prevent crowding and allow for future improvements and expansion.
- Use landscaped buffer areas to screen development areas from residential areas and roadways. Service areas should especially be screened. Buffer areas can help create attractive environments and minimize distractions to the motorist.
- Provide safe, attractive, and unobtrusive signs. Carefully control the location, design, and construction of signs and lighting.
- Encourage development to be architecturally compatible with existing adjoining residences and other development.

Interchange Area Planning Principles

The existing PA 33/PA 512 interchange area is a prime location for many land uses requiring good access, such as motels, automobile service stations, and eating establishments. The plan strongly endorses sound land use and site planning principles around the PA 33/PA 512 interchange and any other interchange, if constructed. Key interchange planning principles include:

- Nonresidential uses and associated parking or service areas should be physically separated from the highway by a curb, planting strip, or other suitable barrier to prevent unrestricted motor vehicle access.
- Interior tracts of land should be protected from becoming “land locked” by ribbon development along approach highways. Land around interchanges should be developed to provide access to interior tracts and to discourage development with shallow lots.
- Accessways to approach highways should be prohibited in the vicinity of the ends of approach ramps. The distance between the ramp and the first access point depends on a highway’s design speed and traffic volumes. For most highways with normal traffic, 1,400-1,700 feet is adequate; heavily-traveled roads may need 2,000 feet.

Land Use and Signage Along Sullivan Trail, PA 33, PA 512 and PA 191

In developing the land use plan, special attention was given to examining and using the best practices for planning and zoning land uses along Sullivan Trail, PA 33, PA 512 and PA 191. The land use plan and the transportation plan consider existing land use patterns, the various economic development opportunities, and the need to manage, control, and minimize traffic impacts of development along these high corridors.

For example:

- *Highway Interchange Planning Principles* - Sound land use and site planning principles around the PA 33/PA 512 interchange are recommended (see above section).
- *Commercial and Industrial Use Only In Accessible and Compatible Areas* - Locations for commercial and industrial development within these corridors are planned only in areas that are both accessible and compatible with existing land use patterns (Maps 1.2 and 1.3).
- *Avoiding Strip Development* - Strip development is often wasteful because it tends to landlock interior parcels and can result in costly utility extensions. Strip development can lead to added development pressure, and can be detrimental to the scenic and rural character of Plainfield Township. For these reasons strip development is discouraged along these corridors. (Note that much of the land along Sullivan Trail and PA 512 is already developed.)
- *Considerations for Nonresidential Development, and Commercial and Industrial Planning and Design Guidelines* – Several land use plan sections include special considerations and guidelines relating to nonresidential development, and guidelines for commercial and industrial planning and design. Most of the new commercial and industrial development will take place at select locations along these highway corridors (Maps 2.1 and 2.2).

- *Managing, Controlling, and Minimizing Traffic Impacts* - The transportation plan includes specific recommendations on “Interior Roads / Access Management” aimed at the highway corridors (see transportation plan).
- *Traffic Calming* - The transportation plan includes specific recommendations on “Traffic Calming” (see transportation plan).

Signage along these highway corridors is also an concern because they are the most visible areas traveled and key objectives of the Comprehensive Plan are to retain the scenic and rural character of the township and enhance the appearance of the two boroughs. The sign provisions in municipal zoning ordinances should be updated to limit the size, and control the location and the spacing of billboards. The following provisions should be considered:

Billboards.

Permitted Billboards. Billboards area only permitted if they meet the following requirements:

1. District. A billboard is only permitted in the HI District.
2. Location. A billboard shall be setback a minimum of 25 feet from all lot lines and street rights-of-way.
3. Maximum Sign Area. 300 square feet.
4. Spacing. Any billboard sign shall be separated by a minimum of 1,000 feet from any other billboard, including billboards on either side of a street and including existing billboards in other municipalities. No lot shall include more than 1 billboard.
5. Maximum Height. 25 feet above the elevation of the adjacent street, measured at the street centerline.
6. Attached. No billboard shall be attached in any way to any other off-premise sign, except that a sign may have two sign faces of 300 square feet each if they are placed approximately back-to-back.
7. Control of Lighting and Glare. See Environmental Protection standards in Sec. ____.
8. Residences. No Billboard shall be located within 200 feet of an existing dwelling.
9. Condition. The billboard shall be maintained in a good and safe condition. The area around the sign shall be kept free of debris.
10. Flashing, blinking, twinkling, animated or moving signs, and signs which emit smoke, visible vapors, or sounds are prohibited.

Commercial Revitalization

Overall Strategy and Guidelines

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* endorses the enhancement and revitalization of older commercial/business centers such as the Broadway corridor in Wind Gap

and the downtown area in Pen Argyl. While Wind Gap and Pen Argyl are almost entirely developed, the “town center” areas of the boroughs still contain great potential for revitalization.

The boroughs of Wind Gap and Pen Argyl share similar revitalization issues pertaining to promoting commercial revitalization. The revitalization program should develop and organize around an overall strategy concentrating on making physical improvements, reusing vacant and underutilized properties, strengthening the commercial core with more and better stores, attracting complementary niche and destination businesses, raising the local and regional profiles of the two central business areas, improving vehicular and pedestrian circulation and access, and organizing special events (including heritage-oriented activities) to attract more customers.

The following overall guidelines should be followed to enhance and revitalize these older commercial areas:

- Emphasize preservation and rehabilitation of historic and older buildings.
- Extend the best features of older development into new construction, including building scale, street trees, sidewalks, landscaped front yards, and garages and parking to the rear of properties, using alleys.
- Encourage development around a unifying theme wherever possible.
- Emphasize attractive types of signs that still provide high visibility for businesses.
- Promote older areas as pedestrian-friendly business centers offering personalized service and unique items for sale.
- Work to further improve the attractiveness of the areas, with additional street trees, other landscaping, improvements to the fronts of buildings, and attractive signs.
- Attract a balanced mix of retail, restaurant, service, office, civic, institutional, and residential uses, taking advantage of growth in residents and employees in the area.
- Examine ways to most efficiently address requirements for off-street parking.
- Seek state and federal grants for building facade, sign, and other streetscape improvements.
- Encourage pedestrian-friendly improvements and ADA compliance.

Major Components of Revitalization

Revitalization efforts should include activities that relate to the following four major components:

- **Design:** Enhancing the physical appearance or beautification of the downtown areas by rehabilitating properties, making streetscape and facade improvements, implementing design management systems, promoting supportive new development, and implementing long-term planning.
- **Organization:** Building consensus and cooperation among the many stakeholders in the revitalization process.
- **Promotion:** Marketing community assets to customers, investors, business enterprises, residents and visitors.
- **Economic Restructuring:** Strengthening the older commercial core, identifying and realizing new opportunities, and responding to competitive challenges from outlying development.

Target Areas for Commercial Revitalization

The older commercial core areas including the Broadway corridor in Wind Gap and the downtown area in Pen Argyl should be targeted for commercial revitalization. The “Town/Village Center” areas that are delineated on the Land Use Plan Map should serve as the initial boundaries. Extensions to these boundaries could be made later, if appropriate.

Revitalization Activities

The following revitalization activities are recommended:

- **Improving Appearance** - The appearance of an older commercial area can impact the ability to attract businesses and customers. Appearance is particularly important for destination-oriented businesses, such as antique shops, gift shops and clothing stores. Special attention is needed to the major entryways to each Borough - because first impressions matter. For most people, the “main streets” represent the most highly visible “face” of each town and the surrounding region.

A set of public improvements should be selected, such as street lights, street trees, traffic signal poles, benches, trash cans and sidewalk paving accents. This could allow some features to be replaced gradually over time, following a pattern that will eventually be consistent. For example, if an existing unpainted aluminum traffic signal post needs to be replaced in the future, it should be replaced with a post that is coated with a dark color and decorative base. On their own property, property-owners can also be encouraged to plant species of trees and install light fixtures that follow the overall scheme.

A Facade Improvement Program involves working with private property-owners to encourage them to improve the appearance of the fronts of their buildings. Many other boroughs in

Pennsylvania have offered matching grants or low-interest loans for this purpose. The funding typically is provided by a State grant or a loan pool by banks. The improvements typically must be approved by a local committee. The emphasis should be placed upon improvements that restore or uncover historic architectural features or that are generally consistent with the historic architecture of the corridor. The goal is not only to make buildings more attractive, but also to make business entrances more inviting to customers. Many types of facade improvements can be made with a low cost, such as a well-chosen color scheme, the addition of awnings or attractive signage.

Decorative banners have been used in Pen Argyl and Wind Gap. Banners add a great deal of color and help to provide a sense of unified identity.

- ***Street Trees*** - Street trees are important to make older areas more attractive and to make walking more pleasant during the Summer. Species of street trees can be chosen that do not obstruct the visibility of businesses and do not cause damage to sidewalks.

One ideal species is Zelkova. The Zelkova species includes strong well-shaped attractive trees that is similar in appearance to the traditional Elm. Because they have a medium mature size, they are less likely to create conflicts with the many overhead utility lines or grow against buildings than larger trees (such as oaks). At the same time, Zelkovas are large enough to create a shaded canopy effect and to not obstruct pedestrians with low horizontal branches. Another ideal species is Little Leaf Lindens.

In some places, there may not be enough room within the right-of-way to plant new trees. In these cases, cooperative efforts could be made with property owners to plant trees just outside of the right-of-way.

One way to carry out a street tree planting program at little public expense would be to ask adjacent property-owners to pay the purchase price of street trees. The borough would then buy the trees in bulk, select the best locations for the trees considering underground utilities, and then have a contractor do all of the planting at one time. This would minimize the costs and paperwork for each homeowner. It also would ensure that the street trees would be located where an adjoining property-owner is interested in helping to maintain the tree - because that landowner volunteered to pay for it.

- ***Pedestrian Safety*** - The Broadway in Wind Gap and Pennsylvania Avenue in Pen Argyl are both heavily traveled. It is often very difficult for pedestrians to cross these streets and some cross-streets. Pedestrian crossings are particularly troublesome for senior citizens and persons with disabilities who cannot walk very fast. Extending curb lines at intersections to create bulb-outs shortens the crossing distance for pedestrians. Dedicated “walk” signals for pedestrians give pedestrians a moment of safe time to cross the streets. Changes in material, texture and/or color of the crosswalk areas also help put drivers on notice that this is a dedicated pedestrian crossing.



Pedestrian crossings are especially difficult when there are large numbers of vehicles making right-hand turns onto a street that a pedestrian is trying to cross. Unfortunately, few motorists comply with the State law regarding pedestrian crossings. Most turning vehicles do not wait for pedestrians to cross. Prohibitions on right turns on red can be helpful in this regard, particularly during hours when pedestrians are more common.

Crosswalks should be highly-visible. Where the most pedestrian crossings occur, it is desirable to use different paving materials, textures and colors to make the crosswalks very visible. It is desirable to extend curbs outward at intersections so that pedestrians do not have as long a length of street to cross. These extended curbs may also slow down the speed of vehicles that are turning, which reduces hazards to pedestrians. These curbs are known as "Bulb-Out Curbs" and are illustrated in the photo above. These extended curbs should be avoided at intersections where there are heavy truck or bus traffic turning movements.

A landscaped center median can be helpful in some instances to provide pedestrians a safe refuge while crossing a main street. The median allows pedestrians to cross one lane of traffic at a time, as opposed to having to wait for both directions to be clear. This type of median may be logical where there is little need for a turn lane, for instance at key intersections along Broadway in Wind Gap.

- ***Sidewalks*** - This Plan does not recommend multi-million dollar expenditures on entirely new brick sidewalks and placing utilities underground. However, if a sidewalk does need to be replaced, consideration should be given to adding some decorative paving patterns, such as a row along the curb that has the appearance of red brick. (Note - In many downtowns patterned concrete and concrete pavers are often used in place of real brick.)
- ***Utility Lines*** - The placement of main utility lines underground is typically so expensive that it should not be considered. The boroughs should work with utility companies to try to persuade them to move overhead utility lines over time from the front sidewalks to rear alleys. This change can most easily be accomplished by cable television lines. New electrical service for street lights should be located underground when new lighting standards are installed.
- ***Parking*** - It is essential to not only provide sufficient amounts of parking, but also to properly manage the spaces that are available. Many persons have come to expect a parking space close to their destination. It is desirable to limit the most sought after parking spaces to a reasonable time limit (such as 2 hours) so that they are available for high turnover use by many persons throughout the day. In Pen Argyl, parking meters serve this function. As unpopular as parking

tickets can be, they are essential to avoid use of the best parking spaces by a single car for an entire day. If this is routinely allowed to happen, persons wishing to visit a downtown business for a quick trip will turn away and not return.

It would be desirable to provide additional numbers of off-street public spaces in Wind Gap and Pen Argyl. In Wind Gap, this could include purchasing underused property towards the center of town. In Pen Argyl, this may involve purchasing private parking so that it is available for public use or having property owners work together for more efficient parking layouts and/or share parking.

The boroughs should not try to replicate suburban parking or it will destroy the historic character and streetscape that makes the towns special. However, there may be additional opportunities over time to provide additional parking, particularly by demolishing accessory buildings and underused rear extensions of buildings in the inside of blocks. This is a method to increase parking supply without harming the “face” of the Town Center along streets.

- **Marketing and Promotion** - Marketing efforts are needed to persuade employees of nearby businesses to regularly visit downtown businesses, particularly during lunch-times and immediately after work. Once tourists are visiting one attraction, it is critical to encourage them to visit downtown businesses. These visitors need to be made aware of the locations and types of businesses that are available. Furthermore, it should be easy to walk from these events to local businesses.

Several markets exist for Town Center businesses, including:

- People who work and travel within the region, especially over lunch-time and immediately after work. For example, in this includes employees of the public schools and the various industries within the Route 512 Corridor.
- People who live nearby.
- Visitors to the region.
- Persons who are already visiting another business in the Town Center and might be encouraged to visit additional businesses.
- Lastly, persons who are encouraged to make a special visit to the Town Center, or who are looking for a pleasant and interesting experience, or who desire items or services they cannot easily obtain elsewhere.

It is difficult for a business to be successful if it is not open during the hours when most people have free time to shop—which is evenings and weekends. At the same time, operators of small family businesses often are over-extended with long hours. One option on weekdays would be to shift from 10 a.m. to 5 p.m. to 11 a.m. to 6 p.m. business hours. Moreover, it may be possible to emphasis a single weekday shopping night when most businesses would be open.

- **Target Uses** - Specific types of uses to attract to Town Center include specialty or niche businesses, symbiotic businesses, or businesses which are “destinations”.
 - Specialty businesses are those which focus on a specific product there by having a greater knowledge and a selection of that particular product. An example would be a newsstand, cigar shop, butcher or cheese shop. Customer service is extremely important to these businesses.
 - Symbiotic Businesses are businesses which compliment and support each other. A restaurant or ice cream parlor near the theater in Wind Gap would be a perfect example.
 - Destination Businesses are those which attract people from a wide geographical area and where people typically will spend hours at a time. Art Centers, fine dining, entertainment venues are typical destinations.
- **Vacant and Underutilized Buildings** - Few vacant buildings exist in the boroughs. It is important to try to keep buildings occupied and display windows filled. If a building sits vacant, try to have community groups work with the owner to fill display spaces with attractive artwork, historic or informational displays.

Many older commercial properties typically have large underused upper stories. This upper story space holds great potential for offices and service businesses at a fare rate. Residential apartments are also an appropriate use. The additional workers and residents which fill these spaces are also additional customers for the 1st floor businesses.

- **Special Events** - Special events are important to bring people into the Town Center so that they can see what is available. Even if these visitors do not purchase many goods or services on the day of the event, they are much more likely to come back another day. Many area residents have gotten out of the habit of shopping in a downtown. Special events can provide the motivation for them to return.
- **Organization and Promotion** - It is important that Town Center businesses and property-owners be organized, particularly to put together joint promotions, joint marketing and special events. Many individual businesses have little money to advertise individually, but when their resources are pooled together, they can afford joint advertisements and flyers and other promotions. This type of advertising is particularly important because the goal is to get customers to visit more than one downtown business at one time.
- **Financing** - Any grants and low-interest loan programs should be geared towards physical improvements that will have long-term benefits, regardless of what business occupies a particular space. Low interest loans and grants are particularly valuable for improvements that are appearance-oriented, such as historic rehabilitation.

Financing programs can be valuable to spur intensified use of upper story spaces, such as for market-rate apartments or offices. Large expenses can be needed to meet fire safety requirements

if the use of upper story space is changed. For example, if storage space is proposed to be converted to apartments, then a second fire-safe stairwell and fire-resistant wall and ceiling separations are often needed.

Priority Implementation Areas

The following priority implementation areas are recommended for the two boroughs:

Wind Gap Priorities

- Improving vehicular and pedestrian circulation and parking i.e. (traffic calming, pedestrian crossing improvements, additional parking, etc.)
- Improving beautification through physical improvements (i.e. signage, facade and streetscape improvements)
- Promoting the reuse of vacant & underutilized properties
- Strengthening the old commercial core area through recruitment & expansions
- Improving image through promotion & marketing
- Emphasizing preservation and rehabilitation of historic and older buildings
- Organizing special events to attract shoppers
- Maintaining and improving surrounding neighborhoods

Pen Argyl Priorities

- Emphasizing preservation and rehabilitation of historic and older buildings
- Improving beautification through physical improvements (i.e. signage, facade and streetscape improvements)
- Strengthening the old commercial core area through recruitment & expansions
- Improving image through promotion & marketing
- Organizing special events to attract shoppers
- Improving vehicular and pedestrian circulation and parking i.e. (traffic calming, additional parking, etc.)
- Promoting the reuse of vacant & underutilized properties
- Maintaining and improving surrounding neighborhoods

Next Steps

Key next steps for revitalization should include:

1. Establishing a revitalization committee to review and discuss the revitalization guidelines and proposals described in this section of the Plan, determine basic revitalization activity priorities, identify sources of state and local funding (e.g., PA DCED's Community Revitalization and Main Street Affiliate programs, low-interest loan pool from local banks for facade improvements).
2. Developing administrative, volunteer and technical capacities for undertaking revitalization activities.
3. Seeking Community Revitalization (CR) Program funding and Pennsylvania Main Street Affiliate Program designation and funding for technical assistance and facade grants.

4. Establishing Facade Rehabilitation Guidelines with assistance from PA DCED, The Pennsylvania Downtown Center and others (using models from other programs such as the Corridor Market Town Initiative).
5. Establishing historic guidelines, including policies and programs relating to demolitions of older buildings as recommended in the Comprehensive Plan.
6. Seeking state and federal grants for building facade, sign, and other streetscape improvements, and other key program components.
7. Establishing code enforcement efforts, such as the adoption of the BOCA Basic Property Maintenance Code.

Economic Development

Quality economic development should be promoted by offering attractive, well-located sites for new industrial development. Various economic development opportunities were identified in chapter 1, the background studies. The plan recommends that all of the identified economic development opportunities be pursued.

HOUSING

The housing element of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* includes information and recommendations on several topics related to housing:

- Housing Opportunities
- Property Maintenance
- Housing Rehabilitation
- Home Ownership
- Incentives to Deconvert Apartments

Housing Opportunities

The land use plan provides areas for various residential living environments and opportunities for a variety of different housing types, including single-family detached homes, two-family dwellings, single-family attached dwellings (townhouses) and multi-family dwellings. In addition to providing opportunities for a variety of housing types in the land use plan, other housing-related items such as property maintenance, housing rehabilitation, and home ownership are important components of the housing plan.

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

As part of the Buildout Assessment that was prepared for this planning program, the remaining developable land for each of the land use plan categories was calculated using the development densities from the land use plan, and subtracting 20% for roads and utilities. Therefore, the plan estimates the following number of potential dwelling units in each residential category:

<u>Category</u>	<u>Developable Land (Minus 20%)</u>	<u>x Density =</u>	<u>Potential New Housing Units</u>
Rural Residential	271.06	x 2 ac./d.u. =	135
Suburban Residential	459.76	x 1-4 d.u./ac. =	459 to 1839
Urban Residential	264.43	x 5-12 d.u./ac. =	1322 to 3173
Total	995.25		1916 to 5147

Housing growth estimates were also developed based upon LVPC’s population forecasts and Pen Argyl-Plainfield-Wind Gap regional percentages of the various existing housing types from the 2000 U.S. Census:

<u>Housing Type</u>	<u>Additional Housing Units 2000-2020</u>
Single-Family Detached	654
Single-Family Attached	155
Multifamily	187
Mobile Homes	<u>41</u>
Total	1,037

A comparison of the additional housing growth estimates (year 2000 to year 2020) with the potential number of additional dwelling units that could be built based on the remaining developable land and the draft land use plan leads to the following conclusions:

- The total number of potential new housing units that could be provided on the remaining developable land in the Rural Residential, Suburban Residential and Urban Residential is nearly twice the 1,037 units estimated to be needed by 2020.
- Ample developable areas remain and have been set aside in the land use plan to allow for a variety of housing types. The remaining developable land in the Urban Residential areas, if developed, would yield between 1322 and 3173 additional dwelling units assuming a density range of between 5 to 12 dwelling units per acre. This represents a cushion of over three times

the estimated total amount of single-family attached and multifamily additional dwelling units needed by year 2020 (342 dwelling units).

Property Maintenance

All municipalities must be concerned about blight, but older communities are more susceptible because of the age of buildings. Municipalities must work hard to enforce basic property maintenance codes and require property owners to either properly maintain buildings or sell the buildings to another party who will make needed improvements. A single problem property can become a cancer in a neighborhood that discourages investment by neighbors and drives away prospective homebuyers. Code enforcement should be used to prevent deterioration past the point of cost effective repair. Severe deterioration can be avoided if property-owners are required to maintain and repair structures in a timely manner.

Housing Rehabilitation

Most housing rehabilitation efforts involve grants or low-interest loans to rehabilitate homes owned by households with low or moderate incomes. Marketing efforts should be strengthened so that eligible owners of target properties are aware of available financing programs. Marketing of housing programs should target properties which do not comply with municipal codes.

Buyers of older homes should be encouraged to take advantage of the Federal Housing Administration’s 203(k) program. The program allows a homebuyer to receive a single loan to finance both the purchase and major rehabilitation of the home.

Given the many older homes in the area, housing rehabilitation should be encouraged and promoted. Housing Field views indicate that the following locations are examples of areas with concentrations of dwellings that should be targeted for a housing rehabilitation program:

<i>Pen Argyl</i>	<i>Plainfield Township</i>	<i>Wind Gap</i>
<ul style="list-style-type: none">• South of Pennsylvania Ave.• Railroad St./Broad St. “peninsula”	<ul style="list-style-type: none">• Belfast area• Area west of Pen Argyl• West Bangor area• West Pen Argyl area	<ul style="list-style-type: none">• Broadway• West of Broadway, between Center and West Sts.• 8th St.

Various grant programs are available and should be pursued for housing rehabilitation. These include such programs as the Pennsylvania Department of Community and Economic Development’s CDBG Program and HOME Program. These programs can be used for housing rehabilitation grants targeted to low and moderate income persons.

Home Ownership

Municipalities should encourage types of housing that will encourage home ownership, such as singles, twins, and townhouses with each home on its own lot. Many households could afford the monthly costs of owning a home but do not have sufficient savings for the closing costs and down payment. Households with difficulty in financially “getting into the house” should be linked with available programs, and area financial institutions need to continue to participate. Lenders must meet obligations under the federal Community Reinvestment Act. Also, the Pennsylvania Housing Finance Agency offers a Closing Cost Assistance Program for low-income homebuyers.

Subsidizing low-income home ownership must be approached with caution. If the household cannot afford to pay for needed repairs and the occupants have no equity in the home, the household may simply walk away from the mortgage, forcing the property to stand vacant for months until foreclosure occurs and the property is resold. During this time, the property is vulnerable to deterioration and vandalism.

Incentives to Deconvert Apartments

In many older areas, single-family homes have been converted into apartments to increase cash flow. In many cases, often because the owner no longer lives in the building, the property is in worse physical condition than single family housing. Financial incentives should be provided to encourage property owners to reconvert homes that had been converted into apartments back into an owner-occupied single family dwelling. Deconversions increase the stability of a neighborhood. However, financial incentives are needed because the market value of the property as a single-family home is often less than the market value as a multi-family property. Where a public agency or non-profit organization receiving government funds gains control of properties and resells them, consideration should be given to deconverting multi-unit buildings prior to the sale, or at least removing any undersized units.

ENVIRONMENTAL CONSERVATION

Municipal officials, local residents, and others identify closely with the area’s environment. Open lands, wooded hillsides, creek and stream valleys, and scenic roads and views help create the character which is so important to area residents. The environmental conservation section of the plan includes recommendations that will help ensure that future development will have a minimal impact on the natural environment of the Pen Argyl—Plainfield—Wind Gap area.

Natural Features and Development

Only development that respects the natural features of each site should be approved. Land varies greatly in the amount of development it can physically support. Floodplains and very steep slopes should remain in open space. Other lands are suited for moderate or intense development.

Municipalities should use guidelines (Table 2.1) for the protection of important natural features when reviewing subdivision and land development applications.

Table 2.1
Guidelines for Protecting Important Natural Features

NATURAL FEATURES (Type & Description)	POTENTIAL PROBLEMS IF NOT PROTECTED	STRATEGIES FOR PROTECTION
Steep Slopes - Steep slopes of 15% have 15 feet of vertical change for every 100 feet of horizontal distance. Very steep slopes of 25% rise vertically 25 feet for every 100 feet. Steep slopes are sometimes wooded and found along creeks.	<ul style="list-style-type: none"> • Difficulty of maintaining and snow-plowing steep roads. • Higher costs of buildings. • High rate of septic system failures. • Increased erosion and runoff. • Winter driving hazards from steep roads and driveways. • Disturbance of scenic areas. • Increased costs to extend public water and sewer lines. 	<ul style="list-style-type: none"> • Site houses on the most suitable land, while keeping steep slopes in open space. • Keep natural vegetation intact. • Strengthen municipal regulations that protect steep slopes. • Require larger lot sizes in steep areas. • Limit building on steep slopes of 15% to 25% and prohibit building on very steep slopes of 25% and above.
Groundwater - Groundwater is stored underground after entering through the soil or seeping from creeks. Maintaining groundwater quality is important because both private wells and public water systems are dependent upon groundwater.	<ul style="list-style-type: none"> • Polluted groundwater. • Dry wells. 	<ul style="list-style-type: none"> • Continue to control the percentage of lots covered by buildings and paving. • Ensure remaining septic systems are designed and operated properly. • Monitor underground storage tanks for leaks. • Avoid polluted storm water runoff. • Avoid high volume withdrawals of groundwater. • Identify areas most feasible for future public water and sewer.
Floodplains - Areas that are prone to flooding include both legally designated floodplains and land along drainage channels.	<ul style="list-style-type: none"> • Increased flooding in other areas. • Loss of potential public recreation area. • Threats to important wildlife and bird habitats. 	<ul style="list-style-type: none"> • Prohibit construction of new structures within the 100-year floodway (which is the actual main flood channel) and along the adjacent 100-year flood-fringe. Prohibit construction within 50 to 100 feet of the centerline of a stream (depending on stream size). • Preserve buffers of natural vegetation immediately adjacent to creeks and drainageways. • Preserve more land along local streams and drainageways.
Wooded Areas - Concentrated areas of mature tree growth are found throughout the region's steeply sloped lands noted above and in other scattered locations.	<ul style="list-style-type: none"> • Increased surface temperatures. • Loss of important bird and wildlife habitats. • Loss of hunting areas. • Loss of air purification. • Increased erosion and runoff. • Loss of scenic resources. • Noise and incompatible development may become more noticeable. 	<ul style="list-style-type: none"> • Restrict cutting of trees during building to the building envelope and immediately adjacent areas. • Preserve tree stands in public or private open space. • Require replanting of removed trees.

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NATURAL FEATURES (Type & Description)	POTENTIAL PROBLEMS IF NOT PROTECTED	STRATEGIES FOR PROTECTION
Shallow Depth to Bedrock - Areas with shallow soils and bedrock close to the surface are frequently found in steeply sloped locations.	<ul style="list-style-type: none"> • Higher construction costs. 	<ul style="list-style-type: none"> • Avoid building in areas with shallow depth to bedrock.
Waterways - Protecting waterways from pollutants involves controlling direct discharges and maintaining vegetative stream buffers.	<ul style="list-style-type: none"> • Loss of potential public recreation areas. • Threats to important bird, fish and wildlife habitats. • Increased erosion and flooding. 	<ul style="list-style-type: none"> • Prevent soil erosion to avoid sedimentation of creeks and drainageways. • Work with soil conservation authorities and farmers to keep animals out of streams. • Consider areas along creeks and drainageways for public greenways. • Minimize runoff of pesticides, grease and industrial wastes. • Minimize direct runoff from parking lots. • Require buildings and paving to be setback from creek banks and significant drainageways. • Control the peak rates of storm water runoff from development to avoid increased flooding.
Natural Drainage Channels - Smaller natural channels that carry storm water to local creeks during heavy storms exist throughout the region.	<ul style="list-style-type: none"> • Increased flooding. • Erosion of soil. 	<ul style="list-style-type: none"> • Preserve adequate width along channels in open space. • Prevent erosion.
Hydric Soils - Hydric soils, often located in wetland areas, have a shallow depth to the seasonally high water table.	<ul style="list-style-type: none"> • Flooded basements. • Disturbance of natural drainage and groundwater recharge. • Poor foundation stability. • Failed on-lot septic systems. 	<ul style="list-style-type: none"> • Continue to enforce local, state and federal wetland regulations. • Place on-lot septic systems and buildings outside these areas. • Waterproof basements of existing buildings. • Carefully design all facilities.

Source: URDC

Steep Slopes

Municipalities should protect against development on steep slopes. The three municipalities should review and amend their local ordinances as necessary to insure that local regulations:

1. Prohibit new structures on slopes above 25%.
2. Increase minimum lot size by 50% where principal buildings are proposed on slopes between 15% and 25%.

Wetland Buffer Zones

Wetland buffer zones should be established. State and federal regulations provide extensive protection for wetlands. Some municipalities prohibit paving or other ground disturbance within a 50-foot buffer of delineated wetlands. In addition, wetlands should not count towards the calculation of total lot size. Each of the three municipalities should consider adopting similar protective measures for wetlands.

Stream Corridor Buffers

Stream corridor buffer regulations should be established. Floodplain zoning is usually designed to limit property damage from flooding. However, floodplain ordinances typically regulate construction, not paving and other soil disturbances. Each municipality should adopt zoning amendments to prohibit construction, soil disturbance, or removal of natural vegetation within 50 feet of all waterways except as part of crop farming. Streamside vegetation is now widely recognized to serve the following valuable functions:

- Reduce water pollution from surface runoff.
- Control the volume of sediment reaching streams.
- Provide shade to help moderate water temperatures.
- Protect wildlife habitats.

In addition to requiring the maintenance of existing vegetation, municipalities should encourage the planting of vegetative buffers along local waterways where none now exist. The Northampton County Conservation District and the Penn State Cooperative Extension Service provide information on properly planting and maintaining streamside buffers.

Livestock Fencing

Fencing that keeps livestock out of local waterways should be encouraged where appropriate. Dirt and waste from livestock and stream banks eroded from constant trampling by animals contribute to stream pollution. The PA Game Commission, Trout Unlimited, Ducks Unlimited, and others have assisted farmers with the cost of establishing fencing to keep livestock out of local streams. The Penn State Cooperative Extension Service endorses streamside fencing implemented on a case-by-case basis rather than universally mandated by regulation. Specific site conditions, the size of the stream, the varying requirements of individual landowners, the ability to maintain the fencing, the need for permanent vs. portable fencing and other factors should all influence site by site decisions about the desirability of fencing.

Nutrient Management and Best Management Practices

The preparation of nutrient management plans and the use of Best Management Practices in farming should be encouraged. State law requires farmers with two or more animal units per acre to prepare nutrient management plans that describe how animal manure is to be safely collected, stored, distributed or otherwise disposed of. (An animal unit equals 1,000 lbs. of animal regardless of species.) In addition to being out of compliance with state law, failure to submit a nutrient management plan can endanger bank financing for farm-related improvements.

Best Management Practices are conservation measures farmers can use voluntarily to help protect the natural environment. Some of the BMP techniques relate to:

- Manure management.
- Contour farming, to reduce soil erosion.
- Stream fencing, to protect stream banks and stream waters from animals.

Grants and loans are available to help prepare nutrient management plans and implement a range of best management practices. Municipal officials should work in coordination with conservation agencies to ensure farmers are fully aware of the need for such conservation practices.

Tree Cutting and Replanting

Municipalities can save trees by adopting zoning amendments that require developers to replant a tree each time a mature tree is cut down or severely damaged during construction. Tree cutting can also be minimized by restricting tree cutting during construction to those that are:

1. Within 25 feet of an approved structure.
2. Within 10 feet of a vehicular cartway.
3. Within 10 feet of an approved storm water detention basin, paved area, driveway, or on-lot sewer system.
4. Within a utility right-of-way.
5. Dead or posing a clear danger to a structure, utility, or public improvement.
6. An obstruction to vehicular site distance.

None of the tree-cutting regulations would apply to forestry operations.

Quarries and Mineral Extraction Areas

Quarries exist in all three municipalities. Most of these areas are no longer actively used for mineral extraction operations. Potential opportunities may exist to reclaim and reuse some of these areas for industrial or business use. Typically, these areas have water-filled quarries surrounded by man-made

steep slopes of quarried overburden materials. Reclamation and reuse of these areas should take place only in accordance with applicable environmental protection and reclamation laws.

Design Standards for Developers

Developers should be encouraged to use appropriate design standards. All of the municipalities should encourage developers to use the following guidelines to design and locate residential structures, adjacent open space, and complementary landscaping. The guidelines are divided into four topics: site planning, architecture, landscape architecture and signage. All four sections should be used together when planning and reviewing new development proposals.

Site Planning

1. Orient uses to minimize objectionable views, such as service areas and the backs of buildings, from roadways and from scenic overlooks.
2. Match scale and character of buildings and other uses to the scale and character of the site and the surrounding environs.
3. Maximize joint use driveways.
4. Minimize impervious cover.
5. Provide scenic overlooks whenever possible.
6. Provide landscaping along the perimeter of parking areas.
7. Place utilities underground.
8. Minimize the grading by the use of retaining walls, building orientation and running with contours.
9. Avoid placing buildings on cleared ridgelines to protect views.
10. Use curved driveways when developing in wooded areas to obscure the view of the house from the road.

Architecture

11. Minimize the height of the proposed structure, especially on ridgelines and in very visible locations.
12. Reduce the building mass by breaking up the building into smaller components.
13. Use indigenous building materials, such as stone.
14. Use compatible, earth tone colors that blend with the existing environment.
15. Design structures to fit the topography rather than excessively grading the site.
16. Use pitched roof design features.

Landscape Architecture

17. Minimize tree removal, especially on ridgelines,
18. Establish vegetative buffers adjacent to roadways.
19. Screen objectionable views.

20. Maximize parking lot landscaping.
21. Use indigenous plant materials.

Signage

22. Use materials that are compatible with the proposed or existing buildings and landscape elements.
23. Locate signs on the building in consistent sign bands.
24. Group signs on one sign structure.
25. Avoid bright colors and internally illuminated signs.
26. Minimize temporary signs.
27. Use consistent typography on signs.

Subdivision Design

Developers should be encouraged to use the following four-step process toward better subdivision design. Although steep slopes, floodplains, and wetlands are usually noted on the site plans, little consideration is given to other features that can be preserved to symbolize the rural character of an area: a grand oak tree, a wildflower meadow, or an old apple orchard, to name a few. By conducting a more intensive analysis of the site, developers should be able to achieve adequate densities without sacrificing rural character.

Municipalities should adopt the four-step process for major subdivisions, based on the work of the Natural Lands Trust, which is also recommended in the land use plan. The process is a sequential approach to more conservation-oriented design and is reiterated as part of the environmental conservation plan:

1. *Identify Primary and Secondary Conservation Areas* - First, identify primary conservation areas such as sensitive natural areas: steep slopes over 25%, 100-year floodplains, streams and stream buffers, and habitats of rare, threatened and endangered species. Secondary conservation areas may include scenic views, locally important vegetation, unique geologic features, wet soils, and others.
 2. *Identify Locations for Development* - Next, locate potential development areas which include the remaining land left over after the primary and secondary conservation areas are identified. Carefully consider siting new homes with views of the open space areas. Reduce lot sizes to accommodate the number of homes that would have been originally provided under conventional development.
 3. *Layout Roads and Trails* - Develop a road system to efficiently access all new homes. Consider developing trails linking residents with each other and with recreation, open space, and other activity areas.
-

4. *Delineate Lot Lines* - The final step involves delineating the boundaries of each lot, a step often done first in traditional design.

Agricultural Preservation

Preserving agricultural land is a primary focus of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* related to Plainfield Township. Each farmer's situation is different from other farmers, and a tool which helps one farmer may not be useful to another. Therefore, the plan recommends that the township use a variety of tools to help preserve the rural, agricultural character of the township.

The primary agricultural preservation tool associated with the zoning and land development process is Transfer of Development Rights (TDR). TDR was discussed earlier in the land use plan section. Plainfield Township should develop a TDR program, which will not only help to preserve farmland but will also direct development to areas with the infrastructure necessary to support the additional development. In addition to a TDR program, the following section presents additional tools recommended to help preserve agriculture and the rural character of Plainfield Township.

Agricultural Security Areas

The designation of additional areas as Agricultural Security Areas (ASAs) should be encouraged. Several farms in Plainfield Township have been designated as ASAs, which makes the land eligible for the purchase of conservation easements. Farmers voluntarily enroll in the program. Inclusion in an ASA does not impose any additional regulations on the property owner or on private development. Once designated, the landowner becomes eligible to have land preserved under an Agricultural Easement (as described below). Moreover, an ASA provides a farmer with extra protection against nuisance lawsuits, municipal regulations of agriculture, and government condemnation.

Agricultural Easements

The use of agricultural easements to preserve farmland should be encouraged and promoted. The most effective method of permanently preserving farmland is purchasing the development rights of the land. The Pennsylvania program uses funds from both the state and the county to pay property owners to preserve land. Property owners voluntarily apply to the county for consideration. The farms are then ranked according to a set of standards, such as the quality of the soils for crops and proximity to other preserved farms. If selected, the landowner is paid the difference between the market value of the land and the value as farmland. A landowner can voluntarily agree to a payment that is less than the calculated value, particularly if insufficient funds are available to the county for the full amount. In that case, the landowner can deduct the difference on the federal income tax form as a charitable donation. A permanent conservation easement is then placed on the land that

permanently prevents any future nonagricultural uses. The land remains privately owned and can be sold to another farmer. Currently, Plainfield Township has one farm under easement (Map 1.4).

The agricultural easement program has limited funds available, and many farmers are put on a waiting list, during which time the farmer may face pressure to sell for development. Also, some farms may not rank high enough to be funded according to the standards—particularly if a farm does not have the best soils for crop farming. Hopefully, with the additional Northampton County Open Space funding more agricultural easements can be purchased in Plainfield Township. Of the total \$37 million Northampton County Open Space funding, the proposed funding allocations are: \$12 million to preserve farmland, \$14 million to preserve environmentally sensitive land, and \$11 million for public parks.

The state recently allowed installment purchases of farmland easements, which guarantees a farmer certain payments in certain years and should increase participation in the program. Installment payments also help landowners spread the income over more than one tax year, which can reduce tax liability.

Farm-Based Businesses

A wide range of farm-based businesses should be permitted in the agriculture preservation areas. Many farmers cannot earn a full-time living on the farm, and, therefore, need supplemental jobs. To encourage the continuation of farming, Plainfield Township’s zoning ordinance should offer reasonable flexibility to farmers on larger tracts by allowing small farm-related businesses on the farm, such as small engine repair, welding services, sharpening services, wood crafting, farm equipment repair, sale of seeds and fertilizers, and similar activities. Farm-based businesses can also encourage the repair and reuse of old barns, which is a major component of the rural landscape. The number of employees and size of ancillary businesses should be limited to prevent the commercial business from growing larger than the farm. In addition, retail sales of agricultural products should be allowed by right throughout the region to help farmers capture a higher percentage of the retail value of locally-grown products.

Right of First Refusal

The plan strongly encourages farmers to continue farming! If farmers must sell, they should give other farmers the “right of first refusal.” Farmers that want to sell should be encouraged to consider a two-step sale, first by selling their easements to the County Agricultural Preservation Program, then by selling their eased farm to another farmer. Continued farming is an important land preservation goal, in addition to saving farmland from development.

Assistance to Farmers

In order to help preserve agricultural land, financial and technical assistance and other incentives should be given to farmers. Financial assistance should be in the form of a housing rehabilitation grant (possible CDBG or HOME Program funding) targeted to farmsteads. Technical assistance

should be available to help farmers refinance a farm, complete an application for agricultural easement purchase, or apply for a farm-related grant, loan, or reimbursement. Other incentives, including tax reductions, should be explored and considered.

Buying and Selling Local Farm Products

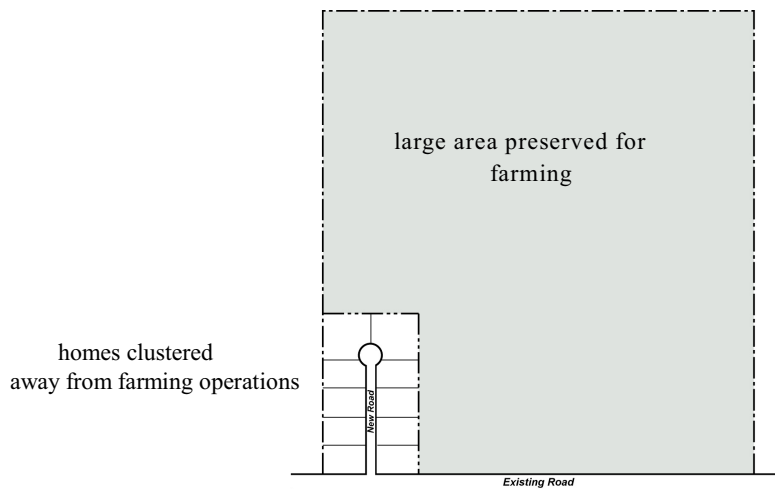
The importance of buying local farm products must be emphasized. Area residents and stores should make a commitment to purchase local farm products. Also, farmers should aggressively promote, advertise and market their products to area residents and grocery stores. Some of these efforts are being made, but they need to be increased.

Agricultural Preservation Zoning

Serious consideration must be given to the use of effective agricultural preservation zoning. Agricultural preservation zoning (Figure 2.4) can be effective in preserving large contiguous areas of farmland. Generally, agricultural preservation zoning limits residential development to a portion of a tract (such as 10 percent of the tract) and requires that the remaining land be kept in very large lots.

The vast majority of the site is preserved as a large tract. The number of new homes is minimized, and the homes are clustered with minimal impact on the farming of the subject tract and adjacent tracts.

Figure 2.4
Agricultural Preservation Zoning Concept



To be effective, agricultural preservation zoning must have the strong support of the farming community. Adjacent farmers who intend to continue farming over the long term and who would be directly affected by the concept should be very vocal advocates. The major benefits of agricultural preservation zoning include:

- ***Protecting Public Investment in Easements*** — Agricultural preservation zoning is particularly important to protect the public investment that has been made in purchasing development rights of farmland. If a significant area of farmland has already been preserved, the value of the farmland to the community requires that housing developments be prohibited on adjacent tracts to avoid conflicts with the agricultural activities.
- ***School Taxes*** — Agricultural zoning can help moderate the rate of construction of new homes. Every major study in Pennsylvania has shown that the vast majority of new housing results in much higher school expenses than the housing generates in school taxes. School costs can be particularly high if new schools must be constructed. Large amounts of new home construction will result in real estate taxes rising faster than inflation, which, in turn, can force farmers to sell the farmland.
- ***Priority in Development Rights Purchases*** — Northampton County receives state funds each year to purchase development rights from farmers. Farmers voluntarily apply for the purchase. If the development rights are purchased, the farmer continues to own the land, can continue to farm it or can sell it to another farmer. However, the land cannot be developed, except for farm structures.

Each year, applications for the program exceed the funding available. Applicants for the funding are ranked based upon a set of criteria considering soils, development potential, farmland potential, and clustering potential. In order to encourage the preservation of adjacent farms, part of the clustering potential is a candidate farm’s proximity to other farms with easements. As a result, agricultural zoning may make it easier for farmers in the region to sell development rights.

- ***Avoiding Conflicts Between Homes and Farms*** — Agricultural zoning reduces the number of homes near farms. As a result, several potential conflicts between homes and farms are reduced or avoided, including:
 - “Nuisance complaints” about odors, flies, early morning and late night noise, and the use of pesticides. For any new home in an agricultural area, Plainfield Township should require that a notice be placed on the deed informing a purchaser that they are buying a home in an agricultural zoning district and should expect some nuisances from routine farming operations.
 - Crop damage from mischievous youth and all-terrain vehicles.
 - Traffic problems, such as increased speed and volume resulting from new development.

However, timing and farmer support are critical to avoiding home/farm conflicts. For example, one farm which is intensely developed with homes adjacent to several active farms can result in many potential home/farm conflicts.

- ***Avoiding Road Improvement Costs*** — Fewer homes means less traffic on rural roads which will postpone or eliminate costly major road improvements.

- ***Minimizing Regulations on Agriculture*** — Agricultural preservation zoning districts often allow more intensive livestock and poultry operations than in other parts of a township because only limited numbers of houses are allowed in the area, which reduces the potential home/farm conflicts.

A wide range of livestock and poultry uses should be encouraged throughout Plainfield Township. However, the most intensive types of livestock uses, especially large swine farms, should still be carefully controlled to prevent severe water pollution hazards and extreme nuisances. Very large and intense livestock uses should be limited to the agricultural preservation areas and should require very large lot sizes and large setbacks, particularly from residential zoning districts and creeks.

- ***Reducing the Costs of Subdividing Lots*** — The limited number of homes in an agricultural preservation district also allows the local government to reduce certain regulations for new lots in the district. Fewer and simpler regulations means that creating one, two, or three new lots can be less expensive in an agricultural preservation district than in a residential district. For example:

- The township should allow roads to be narrower in the agricultural area than in a residential area.
- The township should permit subdivision plans in the agricultural area to be simpler, which saves engineering costs and time.
- Curbing requirements should be waived in agricultural areas.

- ***Minimizing the total amount of developed land*** — Agricultural zoning can direct most homes to locations where they can be served by community water and public sewage services. Focusing development avoids sprawl. For example, if there is demand for 50 new homes, and if the homes use wells and septic systems, the homes would typically consume 70 or more acres. However, if the same 50 homes are developed with community water and public sewage services, they could easily be accommodated on 15 acres. Therefore, the sprawled development consumes 5 or more times as much land for the same number of homes.
- ***Making farm expansion easier*** — Many farmers find that they must farm larger amounts of land in order to be efficient. This becomes difficult when farmers find they are outbid by developers and speculators.

Agricultural preservation zoning is in place in several areas around the state, including large areas of York and Lancaster counties and a few townships in Lehigh County (e.g., Heidelberg, Lynn, and Lower Macungie). Agricultural preservation zoning has also been upheld in several major court cases in Pennsylvania.

In agricultural preservation zoning districts, new homes should be carefully located so that conflicts with agricultural activities are minimized. New home locations should consider prevailing winds and be placed as far from livestock and poultry operations as possible.

One goal of agricultural preservation zoning is to try to maintain farmland in large tracts (preferably over 50 acres) that can be farmed efficiently by avoiding smaller lots (3 to 10 acres) that waste land and are too small to farm. To minimize land consumption, each new home lot should have the smallest area that still meets on-site septic system requirements, which will typically be 1–2 acres.

As described in the Land Use Plan, developers should be encouraged through the TDR process to pay property owners to preserve land in agricultural preservation districts. As an incentive to buy development rights, the developer should be allowed achieve a higher density in other designated residential areas.

Incentives can also work to encourage land owners to sell development rights. For instance, for every housing unit that is not built in the agricultural preservation area, a developer should be allowed to build more than one housing unit in another location. Therefore, the property owner can negotiate for the right to build a greater number of units elsewhere, and the land in the preservation area becomes more valuable if preserved than if developed.

As mentioned, in the land use plan, effective agricultural zoning works throughout Lancaster County and many other parts of the state to limit the number of homes allowed on a tract of land. In some areas homes are limited to no more than 10% of the tract. The number of homes should be based upon a fixed ratio (such as an average of 1 home 10 acres), or follow a "sliding scale" (such as 1 new home on a tract of less than 10 acres, 2 new homes on a tract of 11 to 25 acres, 3 new homes on a tract of 26 to 50 acres, etc.).

Natural Areas

As mentioned in chapter 1, critical plant and animal habitat areas and outstanding geologic features in the Pen Argyl—Plainfield—Wind Gap area also help to define the area and deserve protection. The following natural areas (see Map 1.6) in background studies of the plan were identified in the *Natural Areas Inventory* report (April 1999) prepared by the Lehigh Valley Planning Commission:

Rismiller Woods

The Rismiller Woods site is located within a portion of the large industrial-zoned tract directly west of the PA 33/PA 512 interchange in Bushkill Township. The area includes the headwaters of Sober's Run, the highest quality tributary within the Bushkill Creek watershed. In addition, the natural area is an excellent breeding habitat for amphibians, and the forested riparian corridor provides a corridor for wildlife movement by connecting the forests at Jacobsburg with the Blue Mountain.

Based on the *Natural Areas Inventory*, the high ranking of the Rismiller Woods site relative to other natural areas indicates that the site should be targeted for protection and/or management of the site and the surrounding lands. The unwooded portion of the site near the former Laneco is also one of the potential economic development areas suggested in the *Strategy for Economic Enhancement of the Route 33 and 512 Corridor*, as discussed in the background studies. In order to balance development with natural resource protection, the portion of the Rismiller Woods site located within the industrial zoned area, if developed, should include uses compatible with the natural character of the site, employing quality design standards, natural buffers, and broad spans of separation from delineated streams, pools, ponds, springs and other wetland features. In addition, sewer and water extensions should be designed to minimize impacts on the natural area by following existing roadways and other nonintrusive pathways.

Grand Central Woods

Grand Central Woods is a fairly mature, mesic hardwood forest dissected by the headwaters of the Little Bushkill Creek. A section of the former Erie-Lackawanna Railroad rail bed has been converted to the Plainfield Township Trail, which crosses portions of the area. The natural area is zoned for industrial use. Adjacent to Grand Central Woods to the east is the large Grand Central Sanitary Landfill and two new development enterprises: a bio-gas energy plant and an IDA-financed building. Long-range plans include removing existing slate piles at the landfill to reclaim more land for development. Despite the level of activity and plans for future development, the industrial activity is limited to the northeast portion of the area and does not infringe on the natural area.

While the natural area is not directly impacted by development to date, development pressures may encroach on Grand Central Woods in the future. Interested parties in Plainfield Township, including the township government, should consider acquiring the area for preservation and/or to ensure that future land uses will help to sustain the natural area.

Blue Mountain

Blue Mountain is the most extensive, relatively contiguous area of natural habitat in Lehigh and Northampton Counties. The mountain includes extensive forests with streams, seeps, vernal pools, rock outcrops, and boulder fields. Blue Mountain has long been recognized as one of the major east coast flyways for migrating raptors. Blue Mountain should be preserved to maintain the natural functional value of the mountain ridge.

Big Offset Barren

Big Offset Barren is a broad, forested plateau which straddles the Northampton/Monroe County line on the Blue Mountain. The barren supports a fair- to good-quality population of G2G3 PA-Endangered Species. Long-term survival of species at the site may depend on the availability of forest gaps. Big Offset Barren should be preserved for its characteristics above and its location on both Blue Mountain and the Appalachian National Scenic Trail Corridor.

Municipal Policies and Ordinances for Natural Areas Preservation

Municipal policies and ordinances—including comprehensive plans; park, recreation and open space plans; zoning ordinances; subdivision and land development ordinances; official maps; and Act 537 plans—can and should be used to help preserve natural areas. The following information summarizes the tools suggested in the *Natural Areas Inventory* report.

Comprehensive Plan

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* identifies and maps natural areas based on the *Natural Areas Inventory*. The plan identifies the natural areas as *conservation* areas in the land use plan. The maps, information, and proposals in the plan and the more detailed information in the inventory report should be used to guide policies and decision-making relating to natural areas.

Park, Recreation and Open Space Plan

Important natural areas should be included and mapped as part of park, recreation, and open space plans. Such plans should also contain goals, policies, and implementation strategies for protecting important natural areas.

Zoning Ordinance

Zoning ordinances can provide for natural area preservation. Section 603(b)(5) of the Pennsylvania Municipalities Planning Code (MPC) allows for zoning ordinances to permit, prohibit, regulate, restrict and determine “protection and preservation of natural resources and agricultural land activities.” Section 604(1) of the MPC states that: “the provisions of zoning ordinances shall be designed to promote, protect and facilitate any or all of the following: . . . preservation of the natural, scenic and historic values in the environment and preservation of forests, wetlands, aquifers, and flood plains.” Zoning provisions do not have to preclude development from lands containing important natural areas, but they can allow for flexibility and creativity. Clustering is an example of a zoning provision that can steer development away from important natural areas.

Subdivision and Land Development Ordinance

Subdivision and land development ordinances can require that natural area sites be mapped on subdivisions or land development plans for municipal review. The provision would ensure that natural areas are considered early in the development process. The ordinance can further require the developer to submit a statement listing probable adverse effects on species or natural community and proposed mitigation efforts, as well as any irreversible impacts on a species or community.

Official Map

Natural areas that a municipality may wish to acquire can be shown on an official map, as allowed by Article 4 of the MPC. An official map legally reserves the location of a proposed public lands and facilities. If a landowner wants to use land reserved for public use on an official map, the owner must provide the municipality with written notice of the intent to subdivide or develop. After receiving such notice, the municipality has one year to acquire the property or the owner may proceed with development plans. Detail and accuracy are extremely important in preparing an official map.

Act 537 Plan

State permitting agencies evaluate proposed actions for consistency with a state policy to consider impacts on Pennsylvania Natural Diversity Inventory (PNDI) resources. In the Act 537 Sewage Facilities Planning module, the Pennsylvania Department of Environmental Protection (DEP) verifies the location of proposed development with the PNDI. If development is proposed on a PNDI site, DEP encourage the developer and PNDI to work on a mitigation plan for the site. Often a developer is unaware of PNDI sites within a project area until DEP responds to an Act 537 module request.

Other Tools for Preserving Natural Areas

Other tools may also be used for preserving natural areas. Some of the other tools discussed in the *Natural Areas Inventory* report include:

- ***Environmental Education Programs*** — Community awareness of the significance of local natural areas is an important first step in protecting natural areas. Informational materials and public workshops conducted in conjunction with area conservation groups can be used to promote natural area preservation.
- ***Landowner Stewardship and Registry Programs*** — Stewardship programs encourage conservation of important natural lands in private or public ownership. Stewardship programs rarely require public funding and also have very positive public relations potential. Landowner registry programs involve a non-binding promise by the owner of a natural area to preserve and protect the area.
- ***Partnerships with Conservancies*** — Partnerships involving conservancies such as the Wildlands Conservancy and The Nature Conservancy (TNC) should continue to be used to preserve natural areas.

- ***Farmland Conservation Plans*** — Farmland conservation can often help to protect natural areas. Natural areas can be incorporated into a conservation plan prepared by the Northampton County Conservation District at the request of the landowner. Natural areas within a farm parcel can be eligible for the state agricultural conservation easement purchase program (Act 149 of 1988) if they are included in the conservation plan and do not represent more than 50% of the land area.

- ***Acquisition Programs*** — The most effective method of preserving important natural areas is fee simple purchase, either by a governmental body or conservancy. The Pennsylvania Department of Conservation and Natural Resources offers competitive grants for acquisition of important natural areas. Northampton County has also committed:
 - \$14 million to preserve environmentally sensitive lands.
 - \$11 million to acquire and develop public parks.
 - \$12 million to preserve agriculture.

- ***Sketch Plans*** — Municipal governments can preserve important natural areas by encouraging landowners developing property to participate in a sketch plan review. The review identifies the relationship of the subdivision to the adjacent land, road network, and the natural features of the land area.

HISTORIC PRESERVATION

Historic preservation is important in the area. Only one property within the region, the Weona Park Carousel, is listed on the National Register of Historic Places. Other sites, although not recognized statewide may have local significance.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* includes the following recommendations to help conserve the area's historic resources. Under Pennsylvania law, municipalities have two regulatory options to protect historic buildings:

- A historic district ordinance.
- The zoning and subdivision ordinances.

The plan advocates simple but effective tools for historic preservation and does not call for a formal historic zoning district ordinance. A formal historic district ordinance usually requires a historic architectural review board (HARB) to approve:

- Most types of exterior changes to existing buildings.
 - The architectural design of new construction and expansions.
-

In 2000, the state planning code was amended to provide more authority to protect historic buildings outside of a formal historic district. Zoning can be used to provide:

- Zoning incentives to encourage the rehabilitation of historic buildings.
- A 90-day delay on any proposed demolition of a historic building.
- Requirements that any application for a proposed subdivision, land development, conditional use, or special exception use must include a full description of any historic building on the property and how the application may adversely affect the building.

Delay of Building Demolitions

An alternative to regulating demolition is a mandatory delay of up to 90 days between application and approval of a demolition permit. The delay should only apply to an approved list of important historic buildings. The delay is intended to provide time for interested persons to discuss alternatives to demolition with the property owner. For example, a new buyer might be found who would be willing to restore the building, or the owner might be persuaded to incorporate the building into other plans for the property. An exception to the delay would be allowed if a building inspector certifies that a building needs to be demolished because of an imminent public safety hazard.

Municipalities should also require formal approval for the demolition of a very significant historic building. The demolition would only be allowed if the applicant proved that the building could not be economically reused or that the demolition is necessary to allow a project of special public importance, such as an intersection improvement needed to improve public safety. Again, the demolition prohibition would only apply to an approved list of significant historic buildings.

Building Reuse and Rehabilitation

Another available tool for historic preservation involves allowing the zoning hearing board greater discretion in approving modifications to lot and dimensional requirements as a special exception use if the modification helps to reuse a historic building. The zoning hearing board should also be authorized to:

- Consider impacts upon historic buildings in determining whether to approve a special exception use.
- Require additional landscaping to help screen a modern development from a historic building.

Certain additional reuses should be allowed (beyond those normally allowed under zoning) if a designated building is preserved and rehabilitated in a historically sensitive manner. For example, the ordinance should allow a historic building in a noncommercial zoning district to be used as a bed

and breakfast inn, office, day care center, antique store, funeral home, or similar light commercial use which is not permitted by right in the specific zoning district. Broader use allowances should help create a stronger market to encourage investment in the restoration of historic buildings. The additional “incentive uses” would only be allowed within existing buildings, as would modest-sized building additions designed to be compatible with the historic building as viewed from the road. The applicant would be required to submit plans prepared by a registered architect showing that the important features of the building visible from a public road will be preserved and rehabilitated. Modern features could be added in areas not visible from a public road.

Historic Resource Interest and Awareness

The municipalities and others should promote the increased interest and awareness in historic resources, and more detailed identification of historic buildings. Increased public interest in historic buildings can help spur interest in persons buying and rehabilitating historic properties.

People with an interest in historic preservation should be encouraged to seek state grants to complete a detailed inventory of historic buildings in the area and to identify additional buildings or sites for listing on the NRHP. Listing on the NRHP does not by itself involve any additional regulations upon a private property owner. However, listing does offer public recognition of the building or site’s historic importance and can provide limited federal income tax benefits as part of a major historic rehabilitation of an investment property. The NRHP also provides protection against actions involving federal or state funds which would adversely affect the building or site.

Standards for Modification of Older Buildings

Property owners should be aware of appropriate ways to modernize or rehabilitate old buildings while still retaining the historic appearance as viewed from a road. Views of outdoor storage from streets and residential properties should be minimized. In addition, compatibility with nearby historic structures and the appropriate historic period should be considered for the following aspects when rehabilitating historic buildings:

1. Proportional relationship between the width and the height of the front of the building.
2. Proportional relationship between the width and height of the windows.
3. Rhythm of solid wall areas and windows and doors.
4. Rhythm of building masses to spaces between them, if such rhythm exists along a street.
5. Setbacks from a road.
6. Rhythm of entrances and building projections and roof lines.
7. Materials similar in appearance to authentic materials of surrounding buildings, such as brick, stone, and older styles of siding.
8. Rough or smooth textures.

9. Architectural details, such as cornices, lintels, arches, railings, shutters, iron work, and chimneys.
10. Roof shapes and lines.
11. Fences and walls.
12. Barn walls maintained in wood, preferably painted red, white, or other historic colors.

The local historic preservation effort would be well-served with printed guidelines explaining historic restoration concepts.

Pennsylvania Blue Markers Program

Established in 1946, the historical marker program is one of the Pennsylvania Historical and Museum Commission's (PHMC) oldest and most popular programs. PHMC will fund blue markers for sites of statewide significance. Blue markers for locally significant sites must be funded locally.

Local historians should be encouraged to provide the research to support the nomination of sites in the Pen Argyl—Plainfield—Wind Gap area. More information about the historical marker program is available at:

<http://www.phmc.state.pa.us/bah/doh/hmp.asp?secid=18>

COMMUNITY FACILITIES AND UTILITIES

The plan includes recommendations for community facilities and utilities in each of the following individual subject areas:

- Emergency Services (police, fire, ambulance/rescue)
- Public Water Supply and Sewer Services
- Storm Drainage
- Solid Waste
- Parks and Recreation
- Education
- Library Services
- Municipal Buildings
- Hospitals/Health Care
- Utility Corridors

Emergency Services (Police, Fire, and Ambulance/Rescue)

Local Police Force

Pen Argyl, Plainfield Township, and Wind Gap should consider the possibility of providing joint local police services. Currently, all three municipalities have individual police forces. Police service

is one of the most expensive local services, and a regional force could help control expenses by dividing the cost among the three municipalities. Shared police services can be more cost-efficient than individual departments in providing 24-hour local coverage.

Fire, Ambulance and Rescue Services

The three municipalities should maintain and strengthen public support for local fire, ambulance, and rescue services. Fire, ambulance, and rescue services are provided by several different services, both inside and outside the area. Many of the services operate on a volunteer basis. The three municipalities should consider the possibilities for regionalization of fire protection and other emergency services. Although regionalization is not mandated in this Plan, it is essential that the emergency service providers train together, and coordinate the provision of the specialized vehicles, equipment, and similar needs. Service providers should meet periodically to discuss key items, such as emergency management planning and coordination.

Several volunteer organizations are finding it increasingly difficult to recruit volunteers and maintain enough volunteers to provide adequate service. If some of the current, volunteer providers are unable to maintain service, municipalities should consider joint, public provision of service.

Water and Sewer Services ¹

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends that all central sewer service be owned, operated, and maintained by a public entity, such as an authority or other local government. The following section of the plan provides additional recommendations about future water and sewer services in the region.

Water Supply Plan

Land use in the Bushkill Creek, Martins Creek and Mud Run drainage basins is a key determinant of the quality of available water. Pollution of water supplies must be avoided, particularly in areas around wells of public water systems. Local water supplies can be protected by adopting measures recommended in the environmental conservation element of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*, such as stream corridor buffers, wetland buffers zones, livestock fencing, nutrient management, and best management practices. Other measures which insure the quality and quantity of water supplies include:

- Requiring groundwater impact studies for major proposed development and certain types of land uses which require large amounts of water, such as a water bottling companies and breweries.

¹ Terminology related to water and sewer services is defined in footnotes on pages 1–39 and 1–40.

- Preparing and implementing a wellhead protection program.

Section 503 (10) of the Pennsylvania Municipalities Planning Code (Act 247, as amended) allows municipalities to control water use through the local subdivision and land development ordinance by adopting “Provisions and standards for insuring that new developments incorporate adequate provisions for a reliable, safe and adequate water supply to support intended uses within the capacity of available resources.” Developers should be required to use methods to promote groundwater recharge and protect water quality that are described in the manual entitled *Best Management Practices for Developing Areas in Pennsylvania*, which is available through the county conservation district. For example, storm water can be held within “retention basins” that allow some storm water to be absorbed into the ground. Depending upon soil conditions, infiltration trenches and french drains can be used to recharge some runoff into the ground.

Protecting wetlands is extremely important to control flooding, provide wildlife and aquatic habitats, and recharge groundwater. Wetlands also slow stormwater runoff, which helps to filter impurities that can contribute to surface water and groundwater pollution. Wetlands are defined based upon the soil types, depth of the water table, and types of vegetation. Wetlands not only include swamps but also areas that are typically wet during parts of the year. The main role of the municipalities is to make sure that applicants for development have a qualified professional determine whether wetlands are present. After wetlands are identified, the municipalities should require proof that the applicant has received required state and/or federal permits if the wetlands are to be disturbed.

The municipalities should maintain an active role in controlling erosion. A developer who is proposing major earthmoving is required to prepare an erosion and sedimentation control plan that meets the requirements of the Northampton County Conservation District. The primary role of local municipalities is to oversee construction and to report to the conservation district instances where the approved erosion plan is not being followed.

Farmers should continue to work with the conservation district to make sure that wastes from livestock are not washed into creeks. State funding is available to keep livestock from crossing creeks at locations that cause erosion.

A major objective of the water supply element is to protect the amounts and quality of groundwater. In addition to the measures discussed above, the following recommendations will help protect groundwater and avoid water supply problems:

1. Through the clustering/conservation development process, homes can be efficiently placed on the most suitable parts of a tract while much of the tract is permanently preserved in open space, which serves as a recharge area and as a buffer to protect water quality.
2. Where feasible, developments requiring a community water supply should connect to the water system operated by the Pennsylvania-American Water Company. Community water supplies are safer than individual wells and less vulnerable to pollution and supply disruption.

3. An applicant for a development with public water should be required to show sufficient water capacity for the proposed development. For a larger development, the required proof should include a sanitary survey to identify potential pollution sources and a “draw down” test using a test well and comparing changes in water levels in neighboring wells.
 - Many communities are requiring a water supply study if a use will use more than 10,000 gallons per day (gpd), which is approximately equal to 33 homes. However, serious water concerns should require a study on proposals using 5,000 gpd or more. In fact, Pennsylvania Department of Environmental Protection regulations require a “Public Water Supply Permit” for any public water system serving 15 or more connections or more than 25 persons on a regular basis. Permit application procedures require a sanitary survey, wellhead protection program, well tests, and water quality tests.
 - Concentrated animal feeding operations often generate concerns about water use. However, most livestock and poultry operations generate much less water use and much more recharge into the groundwater than if the land would be developed in homes. Therefore, some municipalities vary the requirement for a water study with the size of the lot so that, for example, a farmer with 100 acres would be allowed a higher water use without a study than a developer with 10 acres.
 - Any water study needs to consider drought conditions.
4. If a water study shows some negative impacts, municipalities should consider requiring measures to reduce the impacts. Examples include:
 - A use should commit in advance to reducing water use during drought conditions.²
 - A use should commit to provide an improved water supply if a neighbor’s well goes dry, which typically involves drilling a deeper well.
 - A use should be required to permanently preserve a large area of land with a conservation easement to provide an undeveloped land area for recharge of the groundwater. The size of the easement could be based on the results of the study, and input from the municipal engineer, PA DEP, PA DCNR and other appropriate entities.
5. Municipalities should encourage water conservation wherever possible. Building codes require the use of water saving plumbing fixtures in new residential construction. Industrial and commercial users should be encouraged to recycle and reuse water, especially cooling water. Some industrial processes can be modified to improve efficiency and reduce the demand for water.

² Pennsylvania normally does not apply a use restriction to a water bottler, which may continue to use millions of gallons of water a day during a drought.

6. Large water bottling operations for off-site use should be controlled to the maximum extent allowed by the law. Some communities treat large bottlers as industrial uses limited to an industrial district due to the large numbers of tractor-trailers and loading/unloading operations. Other communities allow bottlers with special exception approval but require water studies and very large minimum lot size requirements which ensure that land will be preserved to allow recharge.
7. Whenever a new water or sewage system is proposed, municipalities should require the design to allow the system to be efficiently incorporated into a larger system in the future. For example, easements should be provided to allow future connections from neighboring properties.
8. Industrial and other uses likely to cause groundwater pollution should be avoided around all water system well sites.
9. Municipalities should encourage wastewater treatment systems that recharge water into the ground after the water is treated. Systems such as spray irrigation or drip irrigation keep the water in the same watershed, help to preserve large areas of land, and work particularly well for golf courses. In comparison, most public sewage systems collect water from a watershed and discharge into a creek to flow out of the watershed.
10. Stormwater runoff should be considered a resource instead of a disposal item.
11. Water systems and fire companies should update emergency response and operations plans and complete related training. Of particular importance is the response to a hazardous substance spill that could contaminate groundwater or surface water, especially near a public water source.
12. The most likely sources of potential water contamination should be identified so that proper measures can be instituted with the business owner to avoid problems.
13. Community water systems should prepare wellhead protection plans to ensure the quality of water near major water supply wells. State grants are available to help fund wellhead protection plans for existing systems. A wellhead protection plan identifies the land areas around a well that are most likely to contribute towards contamination of the well, considering the underlying geology. The plan then recommends methods that can be used to avoid contamination in sensitive areas, such as purchasing a conservation easement around the water supply to keep the land in open space or limiting the types and/or intensities of development.
14. Wherever feasible, community water systems should have an emergency interconnection with another water system, as is the case with Pennsylvania-American.

Two watershed plans pertain to the Pen Argyl—Plainfield—Wind Gap area:

- The *Two Rivers Area Watershed Conservation Management Plan*³ pertains to the central area of Northampton County, which includes the Bushkill Creek, Little Bushkill Creek, Schoe-neck Creek, and Fry’s Run, as well as portions of the Lehigh and Delaware Rivers.
- The Two Rivers Area Chamber of Commerce commissioned a greenway plan specifically for the Bushkill Creek watershed.

The water supply element of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* is consistent with the state water plan. Furthermore, in compliance with Pennsylvania Municipalities Planning Code, the plan recognizes that mineral extractions and intensive livestock and poultry operations may have negative impacts upon water supplies and are further regulated under state law.

Community Water Service

Community water service is supplied to the Pen Argyl—Plainfield—Wind Gap area by the Pennsylvania-American Water Company, Blue Mountain Division. The PA Department of Environmental Protection reports the total Blue Mountain Division capacity is 6.3 million gallons per day, which is more than two times the system peak day demand and three times the average day demand. The system has sufficient water supply treatment capacity and the statutory authority to provide public water service within the Pen Argyl—Plainfield—Wind Gap area. Even during periods of extreme drought and without the mandatory conservation measures typically employed during such periods, Pennsylvania-American can provide enough water to meet the demands of the region. As development takes place, it will be important to continue to monitor source yield adequacy under drought conditions as well as the capacity of treatment plants and pumps.

Public Sewer Service

Public sewer services should be provided in the most cost-efficient manner, with regular investments to provide reliable service. Public sewer service in the Pen Argyl—Plainfield—Wind Gap region is provided through two separate systems with individual treatment plants in Pen Argyl and Wind Gap. The public sewer systems are presently adequate to handle foreseeable development within their current sewer service areas (see Map 1.11) and should not be a limiting factor to development. Extensions to the existing service areas should be made in accordance with the Map 2.3.

On-Lot Septic Systems

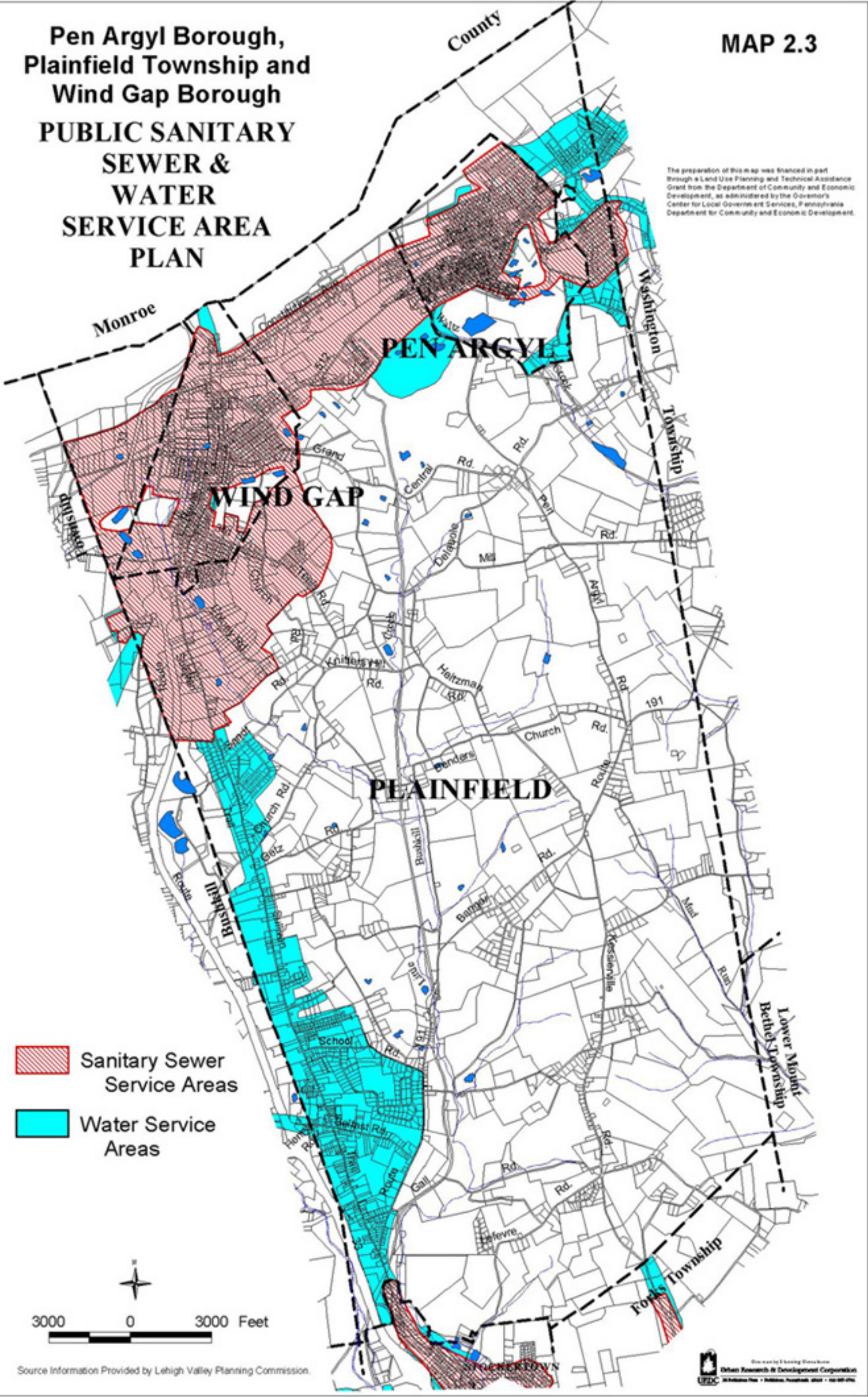
Malfunctioning on-lot septic systems are a health hazard for both the affected homeowner and for the surrounding neighborhood. The vast majority of property owners in Plainfield Township use on-lot septic systems. Sewage drains out of the home through a pipe and discharges into the septic tank.

³ Thomas E. Jones, undated — adopted by the Two Rivers Council of Governments

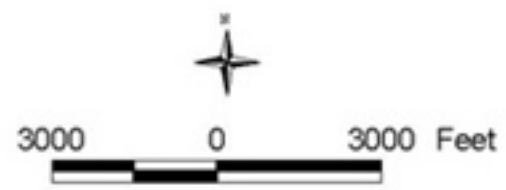
**Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough
PUBLIC SANITARY
SEWER &
WATER
SERVICE AREA
PLAN**

MAP 2.3

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



-  Sanitary Sewer Service Areas
-  Water Service Areas



Source Information Provided by Lehigh Valley Planning Commission.

Septic tanks are watertight chambers of various shapes (typically cylindrical or rectangular) and sizes constructed of various durable materials (typically concrete) which are resistant to corrosion or decay. The tanks detain the sewage, allowing sufficient time for solids to settle (becoming sludge) and the floatable scum layer to rise to the top. Inlet and outlet baffles inside the tank prevent the sewage from exiting the tank prematurely and the scum layer from getting into the outlet pipe and eventually the absorption bed. Between the top layer of scum and bottom layer of sludge is the clarified sewage which flows to the absorption area when displaced by incoming sewage. The absorption area typically consists of perforated pipe over a bed of crushed stone. The sewage flows through the pipes, trickling out of the perforations into the stone bed, percolating through the soil and undergoing renovation before reaching the groundwater.

As the septic system is used, the sludge continues to accumulate in the bottom of the septic tank. As the sludge level increases, the sewage has less time to settle before leaving the tank. If sludge accumulates too long, no settling occurs, and solids escape into the absorption field. Eventually, the absorption field becomes clogged, and the system may malfunction.

To maintain the septic system in good working order, the tank (or cesspool) MUST be pumped periodically. All too often, people wait for visible evidence of system problems (sluggish toilets or spongy, moist areas in the lawn), which is often too late for pumping to correct the malfunction. For a properly designed septic system, the tank should be inspected and pumped every 1–5 years. The frequency of pumping depends on several factors, such as the capacity of the septic tank, the amount of wastewater generated, and the volume of solids in the wastewater.

Sewage Enforcement Officers and septic tank pumpers and contractors indicate that residents often allow on-lot septic systems to operate in excess of ten (10) years without ever being inspected or pumped. It is imperative that people utilizing on-lot sewage disposal are made aware of the importance of periodic tank pumping.

Since a large part of the Pen Argyl—Plainfield—Wind Gap area will likely continue to use on-lot sewage disposal, steps should be taken to ensure the safety and health of the general public. State and local regulations minimize problems associated with the siting, design, and construction of on-lot septic systems. Plainfield Township's ordinance which requires the testing, acceptance, and preservation of a secondary as well as a primary absorption area on each lot proposing to utilize on-lot sewage disposal helps ensure adequate area to construct a replacement system, should the primary system malfunction at any time.

After a system has been designed and installed, maintenance becomes the most important aspect of preventing system malfunction. In addition to the periodic pumping described above, proper maintenance includes keeping certain items out of the home sewer. Items such as coffee grounds, cooking fats, bones and other ground garbage, wet strength towels, disposable diapers, feminine hygiene products, cigarette butts, harsh chemicals, paints, oil, and similar materials that degrade slowly or do not settle well and can either clog or degrade inlets, outlets, and/or the disposal system.

Practicing water conservation is also a method of maintaining on-lot septic systems. Fixing leaky faucets and toilets, taking showers instead of baths, and running the clothes washer and dishwasher only with full loads are all methods of reducing water consumption in the home. In addition, low-flow shower heads, toilets, and sinks are all available. Low-flow devices are required in new home construction, ensuring some water savings. Water conservation should not be restricted to homes utilizing on-lot sewage disposal, but should be practiced by each and every individual.

Changing individual water usage habits is a difficult process. Public education is important to make sure that residents know about methods and devices available for water conservation. Informational pamphlets and public workshops are common, effective public education tools.

Continuous, aggressive public education will also help address the problem of malfunctioning on-lot septic systems. The Pennsylvania Department of Environmental Protection (DEP) and the Lehigh Valley Planning Commission (LVPC) provide informational pamphlets which should be made readily available to Plainfield residents. Plainfield Township should develop a sewer management program aimed at increasing the general public's knowledge of on-lot sewage systems and lowering the future malfunction rate.

On-Lot Sewage Disposal — Potential Problem Areas

The area in Plainfield Township commonly referred to as the “Route 115-Belfast Corridor” is identified as a potential on-lot sewage disposal problem area in the LVPC *Water Supply and Sewage Facilities Plan* (December 1995). In general, the area extends along PA 115 from the Borough of Stockertown north approximately two (2) miles to the Frable Street area of the township.

The Frable Street area has qualified for Community Development Block Grant (CDBG) funding and was the subject for an Act 537 Special Study Plan Update in December 1999. The Frable Street area, as well as much of the Belfast area, is characterized by small lots, older homes, poor storm drainage, and a periodic high water table. The area is served by a community water supply. The special study identified four (4) sewage disposal alternatives:

- Community on-lot system
- Package treatment plant
- Connection to the Stockertown sewage treatment plant
- Continued use of individual on-lot sewage systems repaired as necessary

After an evaluation of the alternatives, the township selected continued use of on-lot systems, concluding that the remaining alternatives were cost prohibitive.

In a letter reviewing the special study dated 16 December 1999), the LVPC indicated the Frable Street area is recommended for on-lot sewage disposal and the continued use of on-lot systems is consistent with the LVPC Plan. The LVPC review also noted that the area is identified as a potential on-lot sewage problem area and recommended a sewage needs study be completed which included a survey of on-lot systems in the area. Also, depending on the needs identified, the LVPC recom-

mended that Plainfield Township consider implementing a sewage management program in the study area to better ensure the operation of on-lot systems.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* concurs with the LVPC recommendation. Further, the plan recommends that:

- The Belfast area be targeted for an income survey to determine any possible qualification for additional CDBG funding.
- The entire PA 115/Belfast Corridor be the focus of additional attention, including any sewage needs study and any subsequent recommendations.
- Plainfield Township continue the practice of using CDBG funding to repair existing on-lot septic systems on a case-by-case basis.

In addition to the Belfast/Rt. 115 corridor, the LVPC 1995 Plan also identified three (3) other areas in Plainfield Township as potential on-site sewage disposal problem areas. These areas are further discussed below:

EDELMAN

This area is located along PA 191 between School Road and Bookshill Road. This area is characterized by marginal soils and smaller lot sizes.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends that:

- The Edelman area be the focus of additional attention, including any sewage needs study and any subsequent recommendations.
- The Edelman area be targeted for an income survey to determine any possible qualifications for additional CDBG funding.
- Plainfield Township continue the practice of using CDBG funding to repair existing on-lot septic systems on a case-by-case basis.

RASLEYTOWN

This area is located around the intersections of Rasleytown, Benders Church and Bookshill Roads. This area was identified not only in the LVPC 1995 Plan, but also the “JPC Water Supply and Sewage Facilities Plan Update – 1979”.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends that:

- The Rasleytown area be the focus of additional attention, including any sewage needs study and any subsequent recommendations.
- The Rasleytown area be targeted for an income survey to determine any possible qualifications for additional CDBG funding.
- Plainfield Township continue the practice of using CDBG funding to repair existing on-lot septic systems on a case-by-case basis.

WEST PEN ARGYL

This area is located along the south side of Pennsylvania Avenue (Rt. 512) from Wind Gap to Pen Argyl. This area is characterized by marginal soils and smaller lot sizes. In addition, this area was also identified in the JPC – 1979 Plan as well as the municipal Act 537 Plan.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends that:

- The West Pen Argyl area be the focus of additional attention, including any sewage needs study and any subsequent recommendations.
- The West Pen Argyl area be targeted for an income survey to determine any possible qualifications for additional CDBG funding.
- Plainfield Township continue the practice of using CDBG funding to repair existing on-lot septic systems on a case-by-case basis.

Finally, the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends a Township-wide Act 537 plan update be undertaken to identify on-lot sewage disposal problem areas and to develop recommendations for resolving said on-lot sewage disposal problem areas.

Storm Drainage

Pen Argyl, Plainfield Township, and Wind Gap each have addressed drainage problems on an as-needed basis, with some financial assistance coming from state and federal sources. Wind Gap has a CDBG-based storm sewer program in place, while Plainfield has used CDBG and Landfill Closure grants to fund construction of some important sewer construction projects.

The as-needed approach should continue to serve the boroughs well because 1) very little vacant land is available for future development, and 2) any redevelopment that may occur will not have any significant impact on the amount of impervious areas within the watersheds. The majority of the storm sewerage in Plainfield Township is isolated single-pipe culverts under the roadways. If

development within a tributary area results in a need for greater culvert capacity, the developer would be responsible for making necessary improvements.

New federal regulations require that all municipalities that operate “small municipal separate storm sewer systems” within urbanized areas obtain permits for discharges to surface waters. Known as Phase II of the National Pollutant Discharge Elimination System (N. P. D. E. S.), the new regulations are designed to reduce the discharge of pollutants, protect water quality, and satisfy the appropriate water quality requirements of the federal Clean Water Act and the Pennsylvania Clean Streams Law. The regulations establish six areas of concern—including public education and involvement, elimination of illicit discharges, and pollution prevention at municipal maintenance and operation areas—control measure requirements in each category must be met by the end of March 2008. Pen Argyl, Plainfield, and Wind Gap are all subject to the regulations and should now be implementing public education programs.

The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* recommends two actions to minimize the need for future storm sewers:

- Preserve natural drainage channels and swales in open space.
- Require developers to provide proper storm water controls and drainage through subdivision and land development regulations.

Any new development within the area will be subject to the regulations of an Act 167 Watershed Plan for either the Bushkill Creek or the Martin/Jacoby Creeks. In order to insure that detention basins are properly maintained, each municipality should consider a policy requiring developers to dedicate basins to the municipality and fund an account to cover the costs of ongoing maintenance. The policy would not apply to a basin that serves only a single lot. Furthermore, local regulations should minimize the amount of impervious surface (areas covered by buildings, paving, or other materials that prevent stormwater from being absorbed into the ground) and require natural vegetation to be maintained. To better manage stormwater runoff, the following policies should be followed:

- Identify and remove excessive street-width and off-street parking space requirements from municipal ordinances.
- Permit alternatives to paved parking in new developments, such as the use of gravel in lighter-used parking areas or new types of “porous paving” (e.g., permeable concrete paving blocks or perforated brick pavers).
- Eliminate requirements for sidewalks on both sides of low-volume streets.
- Minimize the amount of natural vegetation that is disturbed, particularly in forested areas.
- Encourage the planting of thick vegetation along waterways and drainage channels.

- Direct roof leaders into stone-filled infiltration trenches or underground “dry wells” so that the runoff can be absorbed into the ground.

Solid Waste

The Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988 (Act 101) grants powers and duties to counties and municipalities relating to solid waste management. Counties are responsible for preparing and implementing a waste management plan. The plan must contractually assure the existence of waste disposal capacity for a ten-year period. The Northampton County Municipal Waste Management Plan directs municipal waste to the Grand Central Sanitary Landfill in Plainfield Township and the Chrin Brothers Sanitary Landfill in Williams Township.

In order to ensure environmentally responsible and economical waste disposal:

- Solid waste disposal should be in accord with the *Northampton County Municipal Waste Plan*.
- The amount of material to be recycled and reused should be the maximum which is economically feasible.
- Solid waste facilities, including sewage sludge facilities, should be sited only in areas with adequate access and in accord with the goals, objectives, and policies of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*, including those relating to land use, environmental conservation, and transportation.

Parks and Recreation

The delineation of a separate parks and recreation element of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* is intended to satisfy section 503.11(iv) of the Pennsylvania Municipalities Planning Code (Act 247, as amended). The section requires that “The governing body has a formally adopted recreation plan...” prior to adopting an ordinance requiring mandatory dedication of recreation land or fee in lieu of land. This section of the plan identifies park and recreation needs in the three municipalities; makes recommendations to meet those needs; and serves as the formally adopted recreation plan until a detailed parks, recreation and open space plan is completed and adopted, as recommended later in this section of the plan.

Cooperation Among Stakeholders

Pen Argyl, Plainfield Township, Wind Gap, the Pen Argyl Area School District, local recreation program providers, and residents should continue and strengthen cooperative links in helping to meet the recreation needs of area residents. School use for community activities is a significant sign of a

strong, healthy community. The school district, municipalities, and recreation program providers should work together to share facilities and resources and to make community life even stronger.

Parks, Recreation and Open Space Plan

Pen Argyl, Plainfield Township, and Wind Gap should prepare a detailed parks, recreation, and open space plan. Grants are available from the Pennsylvania Department of Conservation and Natural Resources for both the preparation and implementation of the plan. Also, Northampton County funds may soon be available for land acquisition and park development.

Additional Parkland

Additional parkland for both active and passive recreation should be obtained and developed as opportunities arise. Guidelines from the National Recreation and Park Association (NRPA) call for approximately 10.5 acres of local recreation land for every 1,000 residents—8.0 acres of community parkland and 2.5 acres of neighborhood parkland.

The NRPA guidelines suggest that the Pen Argyl—Plainfield—Wind Gap area has sufficient local park acreage to meet current needs (Table 2.2), assuming the inclusion of the Meixsell tract. As future development and population increase, additional parkland will be required. Therefore, municipalities should always look for opportunities to secure additional land for either for active or passive recreation.

**Table 2.2
Municipal Parkland Comparisons to NRPA Guidelines**

Municipality	2000 Population (Table 1.1)	Neighborhood Parkland (acres)			Community Parkland (acres)			Total Parkland (acres)		
		Existing ¹	Needed ²	Surplus/ (Deficit)	Existing ¹	Needed ³	Surplus/ (Deficit)	Existing ¹	Needed ⁴	Surplus/ (Deficit)
Pen Argyl Borough	3,698	9.5	9.2	0.3	18.0	29.6	(11.6)	27.5	38.8	(11.3)
Plainfield Township	5,668	0.0	14.2	(14.2)	78.8	45.3	33.5	78.8	59.5	19.3
Wind Gap Borough	2,812	0.0	7.0	(7.0)	33.9	22.5	11.4	33.9	29.5	4.4
TOTAL	12,095	9.5	30.4	(20.9)	130.7	97.4	33.3	140.2	127.8	12.4

¹ See Table 1.19.

² 2.5 acres/1,000 population

³ 8.0 acres/1,000 population

⁴ 10.5 acres/1,000 population

Sources: U.S. Census, URDC, NRPA

Improvements to Existing Parks

Pen Argyl, Plainfield Township, and Wind Gap should all continue to work with local recreation program providers to improve existing parks and recreation areas. Each park should have a master plan prepared to identify feasible and desired improvements and methods to finance the proposed upgrades. All public and semipublic facilities should be included, such as:

- Wind Gap Community Park.
- Weona Park.
- Green and White Little League area.
- Belfast-Edelman Sportsman Association complex.
- Plainfield Township Park (near the township building).
- Plainfield Recreation Trail.
- Plainfield Township Farmers Grove area.

Weona Park

Originally created in June 1920, Weona Park has evolved over the years with the help of local civic groups, volunteer organizations, private donations, and WPA-era efforts, as well as state and local funding. The park facility features a Dentzel Stationary Menagerie Carousel, one of only three still in operation in the United States. As of August 1999, the carousel is listed on the National Register of Historic Places. A band shell, several pavilions, a miniature golf course, and playground are nestled near the carousel beneath a tall canopy of trees. In addition, a swimming pool, athletic fields, and ice skating area provide for the enjoyment of the entire Slate Belt area.

Given the importance and age of Weona Park, continued maintenance and enhancements will be required. The Borough of Pen Argyl, with support from Northampton County and nearby municipalities, should continue to seek grant funding for needed improvements and park revitalization.

Proposed Parks

In addition to the existing parks in the region, several new parks are proposed. The Gall Farm County Park is located north of Stockertown along the Little Bushkill Creek. The 157-acre site is large enough to include many different types of activities and is located in a perfect position to serve a wide geographic area including Easton, Bethlehem, and the Slate Belt. The site is easily accessible from PA 33, PA 191, and Sullivan Trail. The Plainfield Township Recreation Trail passes through the western edge of the site, providing excellent access to both the trail and the proposed park.

Plainfield Township acquired the Meixsell tract (29 acres along Kesslerville Road south of the Farmers Grove) for recreation field and related park development. Additional land directly west of and adjacent to the Meixsell tract should be acquired for full development of the Plainfield

Community Park. A site plan was recently prepared for the new park, including a phasing plan and funding program for future improvements.

The township is considering the possibility of developing a community center at Plainfield Community Park. Community centers have a wide range of facilities, costs, and success. Some are relatively simple in design and facilities. Others have more expensive features, such as kitchen facilities and swimming pools. Reportedly, the community center in nearby Forks Township is well-used and thriving. On the other hand, a proposed community center in Bethlehem Township has generated much controversy, and voters in Whitehall Township (Lehigh County) recently rejected a proposal to borrow several million dollars to construct a community center. Plainfield Township should identify needed and desired facilities (perhaps as part of the regional parks, recreation, and open space plan proposed above) and conduct a detailed feasibility study to identify costs and funding and to foster public support prior to developing a community center. The feasibility study should also include consideration of infrastructure, such as water and sewer, and include a review of possible alternative locations.

Trails and Greenways

Trails are a significant recreation component in the Pen Argyl—Plainfield—Wind Gap area and should be developed into a network of recreation and transportation connections with the addition of new linkages. The existing Plainfield Township Recreation Trail and the Appalachian Trail should serve as major spines in a regional trail system. Other opportunities for trail network connections that should be pursued include:

- Extending the Plainfield Township Trail north to Wind Gap (possibly along the new industrial road north of NAPA and then along Broadway) to connect with the Appalachian Trail and make a direct connection to Delaware Water Gap.
- Extending the Plainfield Township Trail east from Pen Argyl Road along the former railroad bed to the Green and White Little League area and on to Weona Park.
- Building a new trail to connect the Plainfield Township Trail to the trail network at the Jacobsburg Environmental Education Center.
- Connecting the Jacobsburg Center to Wind Gap through a new trail in the Sober's Run corridor and/or along the PPL right-of-way located west of and parallel to PA 33.
- Building new trails along the Bushkill Creek from Stockertown through Wilson to connect the Plainfield Township Trail to the Palmer-Bethlehem Bikeway, which allows a direct connection to the D & L National Heritage Corridor.

- Extending the larger of the two Forks Township recreational trails to Stockertown and the Delaware River Scenic Drive just above Easton, which allows a connection to the Easton Bike Path.
- Completing the Two Rivers Area Greenway Plan, which is now in progress.

Ultimately, the area should have a fully interconnected trail network linking local parks, schools, and other key areas and connecting directly to the Delaware and Lehigh National Heritage Corridor to the south and to the Appalachian Trail to the north. The *Lehigh Valley Surface Transportation Plan 2003-2022*, prepared for the Lehigh Valley Transportation Study by the Lehigh Valley Planning Commission, supports the concept of a trail network, as follows:

“Emphasis should be placed in developing a series of multi-use paths that address regional transportation needs. Of particular interest should be missing links in the network, with the goal of developing a network of paths that allow users to move around the region. Also, communities should consider linking adjacent residential developments through B/P paths to reduce the dependence on the automobile and to increase alternatives to the user.”

Since the nineteenth century, “greenway” has been used to describe a variety of linear corridors, all of which involve landscaping or open space. The following is the working definition of greenway as defined in the Pennsylvania Greenways Plan:

“A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban and natural areas to wider corridors that incorporate diverse natural, cultural and scenic features. They can incorporate both public and private property, and can be land- or water-based. They may follow old railways, canals or ridge tops, or they may follow stream corridors, shorelines or wetlands, and include water trails for non-motorized craft. Some greenways are recreational corridors or scenic byways that may accommodate motorized and non-motorized vehicles. Others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway will protect natural, cultural and scenic resources, provide recreational benefits, enhance natural beauty and quality of life in neighborhoods and communities, and stimulate economic development opportunities.”

Greenways are becoming increasingly popular as a means of preserving significant natural features and habitats while providing recreation and transportation linkages between activity centers. The Bushkill Stream Conservancy is in the process of preparing a greenways plan for the two rivers study area. Pen Argyl, Plainfield, and Wind Gap should provide input during the preparation of the plan and cooperate in the implementation of the plan.

Recreation Land or Fees from Developers

Developers should be required to provide adequate recreation opportunities for new residents or fees in lieu of land. Many municipalities statewide, through their subdivision and land development ordinance, require residential developers to provide land for recreation within new developments. Some municipalities offer the alternative of paying a fee in lieu of giving land.

Where it is not feasible or desirable to provide recreation land within the development, the ordinance should require fees in lieu of dedicating land. Recreation fees are required to be used to purchase parkland at another location or to improve an existing park. The requirement for mandatory land dedication or fees in lieu of land is specifically allowed in the Pennsylvania Municipalities Planning Code. On-site recreation land is particularly important with dense or attached housing because each individual lot has little room for recreation.

The parkland needs analysis (Table 2.2) indicates that the Pen Argyl—Plainfield—Wind Gap area has sufficient parkland to meet the needs of the current population. Therefore, the first priority for the use of any recreation fees collected from developers in lieu of mandatory land dedication should be park development, rather than additional parkland acquisition.

The level of fee must be established as part of the subdivision and land development ordinance and is based on the market value of the land which would otherwise be dedicated to the municipality. Current recreation fees in the Lehigh Valley are approximately \$750–\$1,200 per dwelling unit.

The Plainfield Community Park envisioned for the Meixsell tract and the Farmers Grove area will be available and accessible to all residents of the region, particularly those in Plainfield Township. Therefore, development of the new park would be a suitable use of recreation fees.

Education

Pen Argyl, Plainfield Township, and Wind Gap have strong, positive working relationships with the Pen Argyl Area School District which should be maintained and strengthened. The school district is a major contributor to the quality of life in the Pen Argyl—Plainfield—Wind Gap area and provides invaluable services not only in education but in life skills development. The Pen Argyl Area School District, like other school districts in Pennsylvania, employs a separate planning process for identifying capital needs for public education. Nevertheless, the district can develop strong liaisons with local communities. Municipalities should foster strong relationships with the school district at every opportunity. Examples of potential cooperation include:

- Serving on community and school advisory boards.
- Developing agreements for joint use and maintenance of school and/or municipal parks.
- Sharing data and other research results.
- Supporting district plans for developing new infrastructure, including future schools.

No new construction is planned in the school district in the near future. Recent projections provided by the district, show an estimated 3.4 percent decrease in total student enrollment from 1,927 for 2003-04 to 1,861 for 2006-07, although the high school enrollment is expected to increase from 618 to 679 during the same time period. The Pen Argyl Area School District's long range plan should continue to be used as a guide for future school planning.

The municipalities and school district should regularly discuss the status of proposed developments. Monitoring development and sharing information about developments are critical to school district plans for future growth.

The municipalities should also promote new business development in appropriate areas to help generate additional tax revenues to the school district to offset the costs of educating new school students. Almost all studies come to the same conclusion: most new residential development does not generate sufficient tax revenues to the school district to cover the costs of educating the new school students. If residential development is not accompanied by business, industrial, and other non-residential development, the school district will be forced to raise real estate tax rates, particularly if new school buildings or expansions are needed.

Library Service

The Blue Mountain Community Library (BMCL) serves the three municipalities. The BMCL should continue its efforts toward meeting the following goals in order to qualify for state funding:

- Ongoing contractual funding commitments from participating municipalities at a level of \$5.00 per resident per year.
- Twenty or more hours of operation per week.

Once qualified, BMCL should pursue available grants for operations and improvements and become part of the Access Pennsylvania program.

Municipal Buildings

The three municipalities should periodically assess the need for municipal building space. Major capital improvements should be planned and scheduled in a 5-year Capital Improvements Program (CIP) as explained in the *Implementation Strategy* section.

Hospitals / Healthcare

Several hospitals and healthcare centers serve the region, but all of the facilities are located outside of the Pen Argyl—Plainfield—Wind Gap area. The municipalities and healthcare providers should periodically examine the need for additional facilities and services in the region.

Utility Corridors

Several utility corridors traverse the region, including gas pipelines and electric power transmission lines. Some utility corridors may offer potential for green ways, connections to greenways, or other uses. For example, the PPL power transmission line right-of-way located along the north side of the NAPA industrial site could have potential as a key link between the Plainfield Township Recreation Trail and the Appalachian Trail. The gas pipeline which cuts a wide swath through Plainfield Township may also have potential for multiple uses, although issues relating to liability issues would have to be addressed.

TRANSPORTATION

The transportation element of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* provides recommendations relating to the roadway system in the region and other topics relating to the safe movement of people and goods.

Three road improvements in the Pen Argyl—Plainfield—Wind Gap area are located in the short-term segment of the *Lehigh Valley Surface Transportation Plan 2003 – 2022* (also known as the Transportation Improvement Program or TIP):

- The PA 512 / PA 33 Interchange Improvements.
- Replacement of the Broadway Bridge.

In Plainfield Township, the PA 512 / 33 interchange ramps will be improved to current standards, PA 512 will be widened, the Sullivan Trail intersection with PA 512 will be widened and signalized, and the Broadway bridge just east of Sullivan Trail will be replaced. Construction of the improvements is scheduled to begin in 2004.

- The Plainfield Township Recreation Trail

In Plainfield Township, 1.8 miles of trail are to be rehabilitated.

The following project is on the plan's long-term segment:

- The PA 512 High-Priority Crash Corridor (Wind Gap)

Study of the segment of PA 512 between Third Street and Park Avenue in Wind Gap will be started.

The municipalities should monitor the status of the scheduled projects and continue to lobby PennDOT for timely completion. Also, to address existing and any potential future traffic concerns within the three-municipality area, the measures included in the following transportation plan section should be considered.

Roadway Reclassifications

Additional development in Pen Argyl, Plainfield, and Wind Gap will test the abilities of the surrounding roadway network. All three municipalities and PennDOT must continue pavement maintenance programs to preserve the existing infrastructure and to help insure safe roads. However, some roadways should be expanded if the land use assumptions of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* prove accurate.

The upgrading of Church Road between Sullivan Trail and Delabole Road in Plainfield Township to collector road standards should be considered. The upgraded east/west roadway could provide the borough by-pass many travelers are seeking through the area. Small realignments of roadway segments (such as near St. Peters Union Church) and the widening of existing single-lane bridges would be required to truly improve Church/Delabole Road to collector-road standards. In the immediate vicinity, Teels Road (local to collector) and Church Road between Delabole Road and Third Street in Wind Gap (collector to local) reclassifications would appear to better reflect the current usage levels.

Other streets may be upgraded similarly as the need arises. However, reclassifications should not be done in a piecemeal fashion. Roadway classifications should be continuous for significant lengths.

Road classifications need to be included in local subdivision and land development ordinances (SALDOs). Roadways in the region should be classified as shown on the transportation plan map (Map 2.4). Road classifications should be reviewed and updated as major developments are proposed and built.

Roadway Improvements

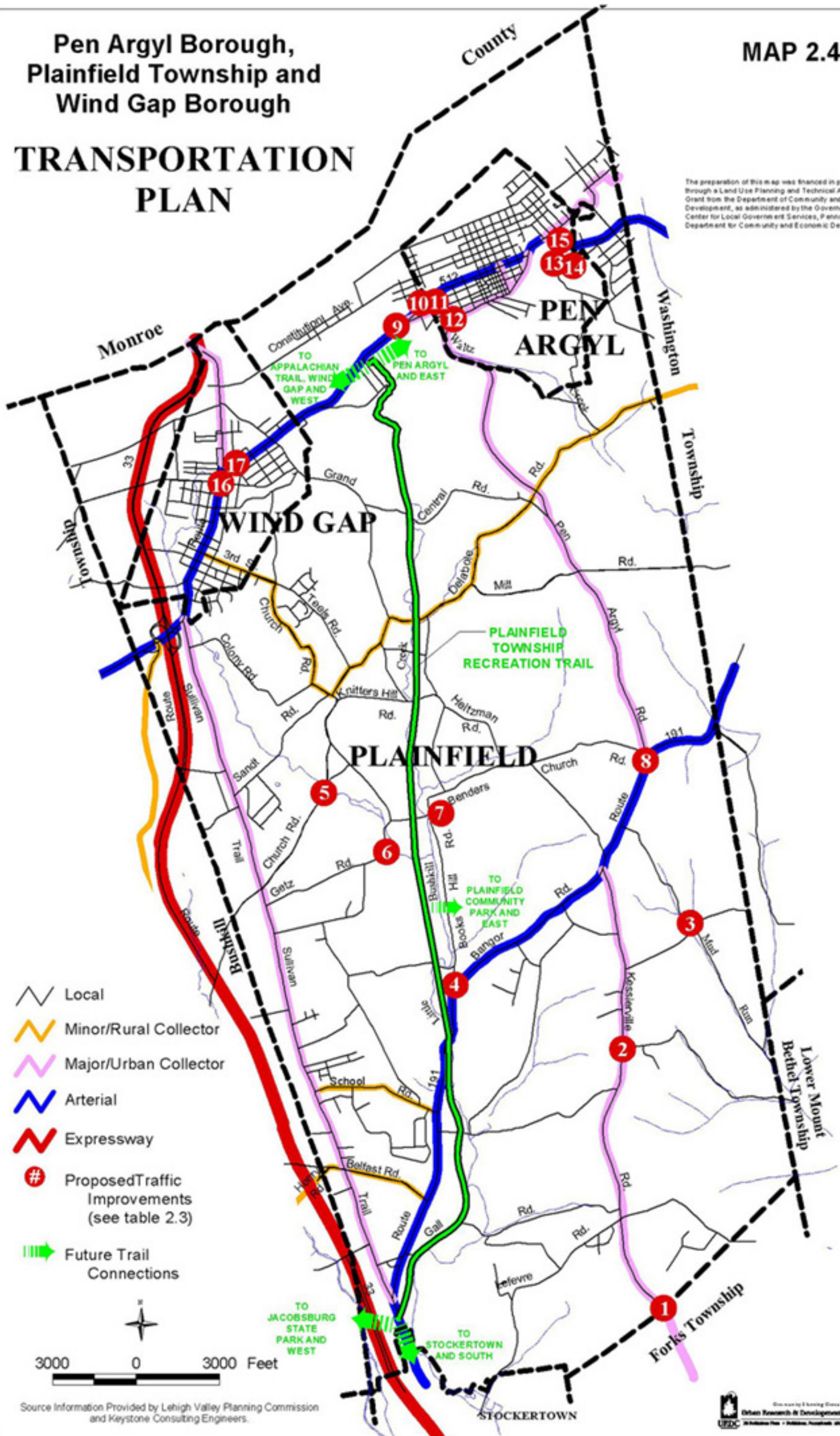
The three municipalities should work cooperatively with other roadway stakeholders to develop cost-effective solutions to traffic problems. Suggested improvements (Table 2.3) were identified through conversations with representatives of the three municipalities, based on issues including pedestrian safety, excessive vehicular speeds, limited sight distances, and others.

Pen Argyl Borough,
Plainfield Township and
Wind Gap Borough

MAP 2.4

TRANSPORTATION
PLAN

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department for Community and Economic Development.



- Local
- Minor/Rural Collector
- Major/Urban Collector
- Arterial
- Expressway
- Proposed Traffic Improvements (see table 2.3)
- Future Trail Connections



Source Information Provided by Lehigh Valley Planning Commission and Keystone Consulting Engineers.

Some locations cannot be improved without significant effort, such as property acquisition, structure demolition, and horizontal/vertical roadway realignment. Therefore, land development proposals located adjacent to designated areas of concern should contribute some resources toward resolving the applicable concerns through provisions in the local subdivision and land development ordinance. In addition, no major road improvement should be undertaken without a detailed engineering study of possible alternative solutions.

The frequency of reported accidents should be the top determinant of priorities for projects undertaken by the individual municipalities, followed by roadway classification (beginning with the arterials). However, the level of difficulty and/or the magnitude of costs involved in improving a high-priority location may justify temporarily postponing an improvement in order to eliminate traffic concerns at several lower-priority locations.

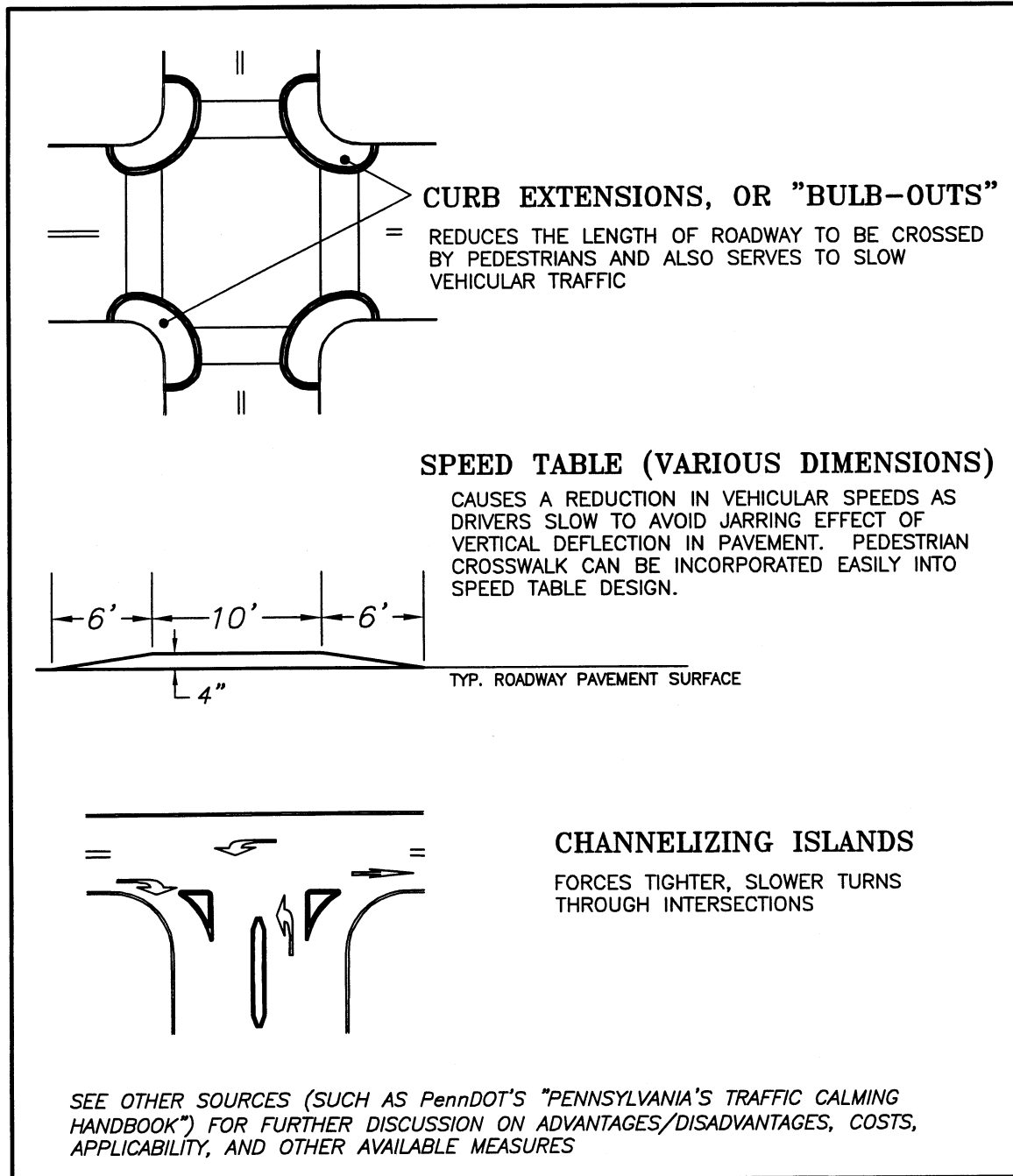
Traffic Calming


While some traffic concerns can be alleviated with relatively simple improvements, such as supplementing or modifying existing signage, others require a greater effort. The practice of traffic calming involves the installation of physical features in and along roadways with the intent of causing a decrease in traffic speeds, a reduction in the amount of ‘through’ traffic, and/or an increased safety level for non-motorized street users (Figure 2.5). The majority of these installations are in residential neighborhoods and, because they are permanent physical features of the roadway, traffic calming is a control method that does not require police enforcement to be effective. Certain locations within the study area have been identified as candidates for potential traffic calming applications:

- South Main Street / Flory Street (Pen Argyl) — Curbed islands will channelize traffic across the intersection, which is currently a large expanse of unmarked pavement.
- Flory Street (Pen Argyl) — Installing a speed table east of the severe curve on Flory Street will slow down speeding westbound traffic.
- A PA 512 pedestrian crossing at Weona Park, east of the signalized Main Street intersection (Pen Argyl) — In addition to signage and flashing signals, the crosswalk should be raised and/or textured to alert drivers of its presence.
- Broadway/Center Street intersection (Wind Gap) - Elderly pedestrians are experiencing difficulty in crossing Broadway within the time allotted them by the traffic signal. To decrease the length of the Broadway crossing, curb extensions (or ‘bulb-outs’) should be installed at the corners of the intersection. The existing intersection’s operational level-of-service should also be evaluated to see if phase length increases to the Center Street approach are feasible.

Other techniques, such as using “Yield to Pedestrian” signs along Broadway in Wind Gap, should also be considered to enhance pedestrian safety.

Figure 2.5
Sample Traffic Calming Measures



DWG. NO: CB01-057 SCALE: NONE DWN BY: KTL DATE: 9/23/03	<p align="center">PEN ARGYL / PLAINFIELD / WIND GAP REGIONAL COMPREHENSIVE PLAN</p> <p>KEYSTONE CONSULTING ENGINEERS, INC. 433 EAST BROAD STREET BETHLEHEM, PA. 18018 610-865-4555</p> <hr/> <p align="center">EXAMPLES OF TRAFFIC CALMING MEASURES</p>	
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**Table 2.3
Suggested Roadway Improvements**

No.	Location	Problem Description(s)	Suggested Improvement(s)
Plainfield Township			
1	Kesslerville/Long Roads	Limited sight distance	<ul style="list-style-type: none"> • Close unpaved part of Long Rd. • Extend Fallen Oak Dr. to Young's Hill Dr.
2	Kesslerville/Capp Roads	Limited sight distance	<ul style="list-style-type: none"> • Remove tree and regrade hill on southeast corner.
3	Mud Run/Miller Roads	Limited sight distance	No practical improvement(s).
4	PA 191 / Books Hill Road	Excessive speeds/severe weather result in southbound vehicles leaving Rt. 191	<ul style="list-style-type: none"> • Install curve warning signs. • More intense police enforcement. • And/or investigate guiderail placement warrants.
5	Church Road	Single-lane bridge	<ul style="list-style-type: none"> • Bridge widening/replacement.
6	Getz Road, east of Batts Switch Rd.	Severe curve Single-lane bridge	<ul style="list-style-type: none"> • Better warning sign age with advisory speed posting. • Bridge widening/replacement.
7	Rasleytown Road	Single-lane bridge	<ul style="list-style-type: none"> • Bridge widening/replacement.
8	Pen Argyl Road/PA 191	Limited sight distance Excessive open pavement area	<ul style="list-style-type: none"> • Trim brush on southwest corner. • Channelize with concrete islands.
9	George Street/PA 512	Severe skew Limited sight distance	<ul style="list-style-type: none"> • Designate George Street one-way eastbound.
10	William Street/PA 512	Severe skew Limited sight distance	<ul style="list-style-type: none"> • Designate William Street one-way eastbound.
11	Speer Avenue/PA 512	Limited sight distance	<ul style="list-style-type: none"> • Designate Speer Avenue one-way northbound or acquire/demolish home on NE corner.
Pen Argyl			
12	E/Main Streets	Confusing traffic control priority	<ul style="list-style-type: none"> • Continually petition PennDOT to relocate or add stop sign.
13	Flory Street/South Main Street	Excessive open pavement area	<ul style="list-style-type: none"> • Channelize with concrete islands. • Modify signage.
14	Flory Street, east of South Main Street	Excessive westbound speeds	<ul style="list-style-type: none"> • Speed table installation on eastern side of Flory Street curve.
15	PA 512 at Weona Park (east of Main Street intersection)	High Vehicle Speeds on PA 512 in area of pedestrian traffic	<ul style="list-style-type: none"> • Physical delineation of crosswalk (by signs, pavement markings, flashing yellow signals, and/or raised pavement).
Wind Gap			
16	Center Street/PA 512	Insufficient time provided for elderly pedestrians to cross	<ul style="list-style-type: none"> • Retime signal and/or extend curb on corners.
17	Park/Lehigh/Utica Avenues/ PA 512	Confusing right-of-way assignment Limited sight distance Excessive open pavement area	<ul style="list-style-type: none"> • Modify sign age. • One-way designations. • Modify existing monument structure. • Prohibit turns and/or channelize.

Note: Curbside parking significantly limits the roadway width available for moving vehicles at numerous locations in Pen Argyl. Reducing the lengths of curbing along which parking is permitted, especially near intersections, would improve both roadway capacities and safety.

Source: Keystone Consulting Engineers

Interior Service Roads / Access Management

A common concern in the region is that development often takes place along arterials and major collector roads without proper access management. Also, many persons would prefer that new residential development involve newly constructed roads in the interior of a tract of land to avoid strip development and to make better use of interior parcels. Interior-fronting lots along major roads minimize traffic safety concerns from having many driveways entering directly onto through roads. Also, interior roads can help to maintain more of a rural character, particularly if open space along the existing roads is permanently preserved through the incentives described elsewhere in the plan.

To encourage the construction of interior roads, greater minimum lot widths should be required for new lots that access an existing arterial or major collector road than for those that will access a new local road. Allowing narrower new local roads and longer cul-de-sacs may help encourage interior roads. Where new lots must front existing arterial and major collectors, municipalities should encourage rear or side access to reduce the number of turning movements directly onto the major roads.

Furthermore, municipalities should encourage interconnections between adjacent nonresidential uses to minimize the number of access points to major roads. Coordinated driveway access among adjacent businesses should include a main driveway which forms a major intersection (which may be signalized in the future) with the adjacent roadway.

Municipal Initiative for Projects Involving State Highways

Pen Argyl, Plainfield Township, and Wind Gap should take a lead role in identifying needed improvements on state roads. An improvement to a state road is much more likely to be funded by PennDOT in a timely manner if local entities are strong partners in the improvement(s). Two common examples of local participation are:

- The municipality pays for preliminary and/or final engineering.
- Adjacent property owners donate needed right-of-way.

In such cases, the value of the engineering and the donated right-of-way may count as a local match that allows a project to receive priority for state funding. PennDOT should be involved early in the process to ensure that the activity is reimbursable.

Potential Industrial Road Extension / PA 512 Relief Route

Currently in the design stage, the NAPER planned industrial/office park development includes a central roadway that will extend from PA 512 in Plainfield Township to North Broadway in Wind

Gap. Some local municipal officials, the Northampton County Department of Community and Economic Development, and others have expressed an interest in continuing the NAPER road to the west and developing a new interchange with PA 33. The new road and interchange would provide a direct connection to PA 33 and help relieve traffic congestion on Broadway.

Several studies have identified the potential for the road extension. The recently completed *Route 512 Truck Study* (Alfred Benesch & Company, July 2002) states:

“The county alignment proposes access from S.R. 33 at an abandoned railroad crossing. The feasibility of providing access from this location should be investigated to determine if an interchange at this location and the use of the former railroad bed for the new alignment is a viable option. Other alternatives such as providing a crossing of S.R. 33 for better access to the economic development area west of S.R. 33 should also be further investigated for benefits to the surrounding transportation network.”

The *Route 33/Route 512 Corridor Study* (March 2003) also recommends conducting:

“a transportation needs analysis to examine the potential for (1) extending the Industrial Road west following the railroad right-of-way across Route 33 and down to Route 512 at the western edge of the vacant Laneco strip mall and (2) the construction of a partial interchange at the intersection of the railroad right-of-way and Route 33.”

Any proposal for a road extension/interchange should only be pursued if justified by a comprehensive transportation needs analysis and feasibility study, which should be undertaken as soon as possible. Also, municipalities can prepare an Official Map, pursuant to the provisions of the Pennsylvania Municipalities Planning Code, to identify and reserve a corridor for the road and potential interchange.

Parking

A parking study should be conducted to identify parking needs and opportunities within the Town/Village Center areas. The study should examine ways to manage short- and long-term parking and identify locations for potential new off-street parking lots. Creative ways to help fund additional off-site parking lots should also be used to increase parking opportunities in the Town/Village Centers.

Narrower Roads Without Curbing in Low Density Areas

Buildings, roads, and other impervious surfaces are major contributors to the volume and velocity of storm water runoff. Narrow roads provide less impervious surface and are more characteristic of

rural areas than wide roads. Plainfield Township should allow narrower roads in the Rural Residential and Agricultural Preservation areas. However, curbing and wider roads should still be required in higher-density areas within agricultural areas. For instance, if an agricultural conservation zone allows 10 percent of large agricultural parcels to be developed and 30 acres of development are allowed in a 300-acre area, curbing and wider roads may be required within the developed portion of the area while narrow roads and no curbing are permitted elsewhere in the zone.

Wider Roads Capable of Carrying Higher Traffic Volumes and Heavier Vehicles in Industrial and Commercial Areas

The areas proposed for industrial and commercial development will generate higher traffic volumes and heavier vehicle loads than residential areas. Therefore, local land development ordinances must respond by requiring wider roads and stronger pavement structures than those in residential areas. When designing wider roads in these areas, the potential for increased stormwater volume and non-point pollution loads must be addressed.

Roadway Design Standards

In addition to the above interior service road and access management principles, the following design principles should be reflected in all local SALDOs:

- Control the size and location of signs to preserve lines of sight.
- Require additional setbacks and appropriate landscaping along a highway to reduce noise and distractions to motorists.
- Align driveways directly opposite those across a highway wherever possible instead of allowing staggered access points within close proximity.

After design principles are written and adopted, municipalities must work with PennDOT to ensure that the department enforces the requirements in reviewing driveway permit applications for access to the arterials and collectors.

Capital Program for Road Repaving and Reconstruction

A multi-year capital program should be used for road repaving and reconstruction. Local road reconstruction is frequently one of the first budget items cut when municipalities face tight financial circumstances. One way to elevate the importance of good local roads is to adopt and fund a multi-year program which identifies each road segment and its anticipated replacement date.

One of the factors which should be monitored when scheduling the repaving/reconstruction of local roads is the extent of stormwater drainage problems within the immediate area of each road.

Concentrated storm runoff can accelerate the deterioration of a roadway and cause a variety of safety problems. Municipalities should identify and target storm drainage problem areas as maintenance priorities.

Bicycle and Pedestrian Safety

Bicycling and walking are important means of recreation. However, both bicycling and walking can also be important methods of transportation. Opportunities for safe bicycle and pedestrian travel throughout the region should be promoted. Sidewalks should be constructed at appropriate locations in new development.

Roads should be wide enough to provide room for bicyclists. Where curbing is not provided, shoulders should be wide enough and smooth enough for bicyclists. Municipalities should work with PennDOT to provide shoulders along heavily-traveled state roads which are suitable for walking and bicycling and separated from the travel lanes by white lines. Also, school bus stop locations should be carefully planned for safety, and joggers/runners should be encouraged to use park and trail locations for safety, including the Plainfield Township Recreation Trail.

Carpooling and LANTA Ridership

Carpooling and LANTA ridership should be promoted. Traffic congestion and safety can be improved by removing cars during peak travel times through the use of carpools and public transit. As employment expands in the region, municipalities, residents, and employers should work with LANTA to assess the needs and opportunities to expand bus service.

PLAN INTERRELATIONSHIPS AND TIMING

The comprehensive plan addresses the following major topics:

- Land Use
- Housing
- Environmental Conservation
 - Natural Features
 - Agricultural Preservation
- Historic Preservation
- Community Facilities and Utilities
- Transportation

All of the topics are interrelated. Planning and capital programming actions taken in any one area are likely to affect one or more of the other areas. For instance, land use decisions often affect circulation patterns and community services, such as public utilities and recreation needs.

The Pennsylvania Municipalities Code, Section 301(a)(4.1), requires that comprehensive plans include a statement of the interrelationships among the various plan components. The requirement insures that the comprehensive plan components are integrated and do not present conflicting goals, policies or recommended actions.

The Pen Argyl—Plainfield—Wind Gap Planning Committee held monthly workshop meetings during the preparation of the regional comprehensive plan. The committee reviewed each plan component for both content and consistency with other plan components.

The following examples illustrate the major interrelationships among the various plan components:

- Major natural features, such as floodplains, steep slopes and wetlands, which are identified in the environmental conservation element are designated as *Conservation* areas in the land use plan.
- Areas recommended for *Agricultural Preservation* in the land use plan do not overlap with areas proposed for residential, commercial, or industrial development.
- Future public water and sewerage service extensions areas are recommended only in areas where more intense development should occur.
- Commercial and industrial developments are encouraged only where infrastructure already exists or will be available and where highway access is also available.
- A variety of housing types and densities is proposed to promote housing choice but not at the expense of natural features protection or agricultural preservation.

- The land use element and housing element work in concert to provide various residential living environments, a variety of housing types, and fair housing opportunities.
- Major highway improvements are not recommended where they will encourage large scale development in agricultural and rural areas.
- The economic development goals recognize the importance of preserving farmland, and encouraging new economic development in appropriate areas where public water and sewer service and other infrastructure exists or can be feasibly provided.
- An overlay mapping approach was used during the preparation of the land use, community facilities and utilities, and transportation elements to help ensure consistency and avoid conflicts among the three major plan components.

The timing of development in the Pen Argyl—Plainfield—Wind Gap area will largely depend upon the private real estate market. The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* addresses major development and conservation patterns for the next 10 to 15 years. After that time, the plan should be revised. Every three to five years, municipalities should review the plan to determine if changes are needed. Major zoning changes should be made only after a participating municipality assesses how the proposed change(s) conform to the spirit of the regional comprehensive plan.

PLAN IMPLEMENTATION

Implementing the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* requires the cooperation of many partners. The following section presents recommendations involving communications, joint municipal activities, and local ordinances.

Citizen Input, Outreach, and Involvement

Citizen input should be promoted to keep residents informed about community issues and encourage volunteer efforts to improve the community. Volunteer efforts by citizen and civic organizations and individuals are essential to further improve the region. Community pride is a powerful motivator, and municipalities must work to keep residents informed and provide opportunities for meaningful input while making use of new technologies for communication. Each municipality should have an internet site that is regularly updated with information that will help spur public interest, enthusiasm, and involvement, including information on recreation programs and agendas for upcoming municipal meetings. Opportunities for citizen involvement should also be highlighted through the newspaper and other media.

On-Going Planning

Planning is a continuous process. The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* should be implemented through a continuous process of follow-up planning and action. Short-term actions must be taken with some understanding of the long-range ramifications, both benefits and consequences. The plan should be consistently used as an overall guide for land use and transportation decisions. In addition, the plan should be reviewed periodically and, if necessary, updated to reflect changing trends.

The Pen Argyl—Plainfield—Wind Gap Planning Committee

The Pen Argyl—Plainfield—Wind Gap Planning Committee should be maintained and strengthened as a forum for communications, coordination, and cooperative efforts among the municipalities and between local, state, and federal agencies. To be effective, community development efforts require a close working relationship between federal, state, and local agencies and adjacent municipalities. The Pen Argyl—Plainfield—Wind Gap Regional Planning Committee is a strong vehicle to provide communication and encourage regional cooperation. The committee should continue to function as a strong link between:

- Regional and adjacent municipalities.
- Lehigh Valley Planning Commission and other county agencies.
- Pen Argyl Area School District.
- State agencies, through the staffs of state representatives.
- Federal agencies.
- Residents.
- Neighborhood organizations.
- Businesses.
- Institutions.
- Property owners.
- Other community partners.

Implementation Tools

The many available implementation tools should be used, as appropriate, to implement the plan. The *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* establishes overall policies for guiding the future development and conservation of the region. However, the plan is only a guide for local policy. In Pennsylvania, the following major tools are available to help implement the plan:

- Zoning ordinance
- Subdivision and land development ordinance
- Construction codes
- Official map
- Computerized mapping
- Capital improvements planning
- Municipal annual spending
- Federal, state, and county grants

Zoning Ordinance

Municipal zoning ordinances are the primary legal tool to regulate the uses of land and buildings. Each zoning ordinance includes a zoning map that divides the municipality into different zoning districts. Each district permits a set of activities and establishes a maximum density of development. Each zoning ordinance and map should be updated as needed to be generally consistent with the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* to modernize standards and to address local concerns. In addition to regulating land uses and densities, zoning also controls:

- Building height.
- Percentage of a lot that may be covered by buildings and paving.
- Minimum distances that buildings may be placed from streets and property lines.
- Minimum size of lots.
- Maximum sizes and heights of signs.
- Protection of important natural features.

It will be important for the three municipalities to work together to create zoning, and subdivision and land development ordinances that are consistent with this Comprehensive Plan. This cooperation will result in ordinances that have common provisions and language.

Subdivision and Land Development Ordinance

A Subdivision and Land Development Ordinance (SALDO) regulates the creation of new lots, the construction of new streets by developers, and the site engineering of new commercial, industrial, and institutional buildings.

Construction Codes

A new state law is establishing a process in which modern construction codes will apply within all municipalities. The state is using a model code prepared by a national organization. Construction codes are particularly important to minimize fire hazards.

A municipal property maintenance code is a tool many municipalities use to help control blight. Enforcement of a maintenance code requires the staff to regularly monitor conditions in the area covered by the code.

Official Map

The Pennsylvania Municipalities Planning Code (MPC) grants municipalities the authority to adopt an Official Map. An Official Map can designate proposed locations of new streets, street widenings, intersection improvements, municipal uses, parks and natural areas. The map may cover an entire

municipality or only certain areas. The Official Map process is particularly useful to reserve rights-of-way, such as for a future street widening.

When an Official Map is adopted by the governing body, the municipality is provided with a limited amount of authority to reserve land for the projects on the map. If land designated on the map is proposed for development, the municipality has one year to either purchase the land for its fair market value or decide not to proceed with the project. The 1-year period provides time for the municipality to raise funds to acquire the land and avoid lost opportunities. If the 1-year period is not in effect, a building permit can be obtained almost immediately to construct a building that could obstruct future municipal projects. An Official Map also serves to provide notice to property owners about the municipality's future plans.

Computerized Mapping

The Lehigh Valley Planning Commission (LVPC) operates a computerized mapping system, often referred to as a Geographic Information System (GIS). The maps in the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan* are based on maps and information in LVPC's GIS system.

Capital Improvements Planning

Each municipality should have a system in place to continually plan and budget for major capital expenditures. "Capital" improvements are projects involving a substantial expense to construct or improve major public facilities that have a long life span and that are not funded through annual operating expenses. Examples of capital projects include major street improvements, parkland acquisition, major storm sewer construction projects, and new bridges.

A municipal Capital Improvements Program (CIP) identifies needed projects, establishes project priorities, identifies possible funding sources, and helps to budget for the project. A typical CIP looks five years in the future. A CIP should identify major street reconstruction projects that will be needed over the next few years. Coordinating street reconstruction helps utilities avoid the need to cut into a street shortly after repaving. Through a CIP, many different projects can be combined into a single bond issue, which avoids the high administrative costs of multiple bond issues. A CIP also allows a municipality to carefully time any bond issues to take advantage of the lowest interest rates.

Other Implementation Tools

Municipal budgeting can influence the implementation of the local comprehensive plan. In addition to establishing local priorities and providing municipal funds for projects supported by the plan, local budgets establish municipal tax rates, which influence business and personal decisions about locating inside or outside a municipality. Also, grants from federal, state, and other sources can help finance projects and reduce the financial burden on local taxpayers. Pen Argyl, Plainfield and Wind Gap should aggressively pursue any available project funding in either the public or private sector.

Regional Cooperation

Regionalization of local, public services should be pursued whenever possible. The *Pen Argyl/Plainfield/Wind Gap Regional Comprehensive Plan* helps to establish a framework for further cooperative ventures among the municipalities in the region and between municipalities and the county. Intergovernmental cooperation often decreases the cost and improves the quality of many services. The Pennsylvania Intergovernmental Cooperation Act provides broad and flexible authority to organize joint efforts⁴ as municipalities deem appropriate. Often, one municipality provides a service to a second municipality through a contract, but many other options are available, including joint agencies or authorities. Pen Argyl, Plainfield Township, and Wind Gap should consider the following types of actions to promote intergovernmental cooperation:

- ***Shared services and shared staff*** — Shared personnel can be particularly beneficial for specialized staff, such as different types of construction inspectors or zoning officers. Two or more municipalities can hire the same person to do the same job, with so many hours assigned to each municipality. Each municipality benefits from a highly-qualified, full-time person, as opposed to each trying to find a part-time person. Sharing staff can reduce turnover, which reduces training costs and reduces the potential for mistakes being made by inexperienced staff. In addition, shared staff are available during more hours of the day, which is beneficial to residents and business persons. Some municipalities also have a joint application and testing program for police officer applicants, which reduces costs and results in a larger pool of applicants.
 - ***Shared consulting staff*** — Municipalities can also benefit from shared or common arrangements regarding consultants, such as municipal engineers, sewage engineers, or solicitors. Shared consultants promotes good communications between municipal governments, reduces the costs of having professionals educated about complex issues, and eliminates time meeting with consultants of other municipalities to share information.
 - ***Shared recreation programs*** — A shared or coordinated recreation programs increases the types of programs that can be offered to residents. For example, one municipality may offer a gymnastics program while another municipality offers basketball programs, with residents of each municipality being allowed to participate in each at the same cost per person. Multi-municipal recreation programs have experienced great success in parts of Pennsylvania, where each municipality contributes funds towards one set of programs, often in partnership with a school district.
 - ***Joint yard waste collection and composting*** — Disposal of yard waste requires significant land and expensive equipment. Shared facilities can dramatically lower costs.

⁴ The same concepts can also apply between a municipality and a school district. For example, a municipality may agree to plow snow from school parking lots and driveways in return for free municipal use of some school facilities.

- ***Snowplowing*** — Frequently, two municipalities must each send out a snowplow to clear different segments of the same street. Trading responsibility for plowing may save money by allowing a single snowplow to clear the entire length of a street.
- ***Joint purchasing*** — Joint purchasing reduces the cost of preparing bid documents and legal ads for each municipality. Also, joint purchasing frequently results in lower costs because larger volumes are being purchased. Joint purchasing is particularly useful for annual purchases of standardized materials, such as road salt. The state also has arrangements that allow municipalities to "piggyback" upon state purchases. State law allows a similar process of "piggyback" bids between municipalities and a county. The Pennsylvania Intergovernmental Cooperation Act includes rules for joint municipal purchasing. Under state law, one municipality can be the lead municipality in purchases, without requiring multiple municipalities to seek bids. Municipalities can also join together to jointly purchase insurance, to hire traffic signal maintenance services, or to jointly contract for solid waste collection. Joint auctions can also be used to sell surplus vehicles and equipment.
- ***Equipment sharing*** — Expensive equipment, such as paving, rolling, and grading equipment, is often needed by each municipality for only portions of the year. The equipment should be jointly owned or be owned by one municipality and leased other municipalities. Another alternative is an arrangement allowing trading of equipment.
- ***Joint tax collection*** — The Local Tax Enabling Act allows municipalities and school districts to contract with each other to have one office jointly collect local taxes.
- ***Councils of Governments (COGs)*** — A COG is a separate, regional government agency that can be formed provide municipal services, if authorized by municipalities. For example, various COGs in Pennsylvania provide code enforcement, promote good communications between municipal officials, study issues, and lobby for state or federal funding for projects.
- ***Joint authorities*** — Municipalities can create formal joint municipal authorities to address many types of services, including recreation, public water, and public sewer. Authorities often have access to funding sources which are not available to local government because of the local government's ability to levy taxes.
- ***Joint planning commissions*** — Municipalities can appoint joint planning commissions to serve in place of or in addition to municipal planning commissions.
- ***Cooperation between or merger of fire companies*** — Local fire companies, many of which are composed entirely of volunteers, already cooperate in terms of local response. Pen Argyl, Plainfield and Wind Gap may benefit from additional cooperation between or merger of some fire companies, including one or more fire companies in neighboring municipalities. Merger or cooperation is particularly beneficial to make the best use of both a limited number of volunteers and extremely expensive fire apparatus, such as rescue trucks, hazardous materials equipment, tanker trucks, and aerial ladder trucks.

- ***Joint police forces*** — A joint police force can provide 24-hour coverage and specialized services, such as specific types of investigations and training regarding youthful offenders. A joint police force often results in increased training and professionalism, which can reduce liability costs. A joint force also makes it easier to investigate crime that crosses municipal borders.

Management and control of a joint police force is always a large issue and can take any of several forms. The participating municipalities would appoint persons to a commission which directs the force. Alternatively, one municipality could contract for police services from a second municipality, which manages the force.

- ***Incentives for intergovernmental cooperation in grants*** — Many competitive state grant programs provide preference to projects that involve cooperation between more than one municipality. Therefore, if two similar projects are in competition for a grant, and one involves cooperation between several municipalities, the project with several municipalities involved is most likely to be funded.

Role of the Planning Commissions

Some of the greatest responsibilities of each planning commission are to oversee the preparation and implementation of the comprehensive plan and the preparation of zoning and subdivision ordinance revisions. On a monthly basis, the planning commission also reviews proposed developments. The planning commission also has a role in reviewing proposals of other government agencies.

Role of the Board of Supervisors and Borough Council

The final decision on nearly all matters affecting the growth and preservation of each municipality rests with its Borough Council or Board of Supervisors. Therefore, close communications and cooperation between the planning commissions, the municipal staff, and the elected officials will be essential in continuing to improve quality of life in the Pen Argyl—Plainfield—Wind Gap Region.

ACTION PROGRAM

The action program (Table 2.4) summarizes the major recommendations of the *Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan*. Certain items are recommended as high priorities. The timing of each recommendation is listed, as well which agencies should have the primary responsibility to carry out the recommendation.

**Table 2.4
Action Program**

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
ENVIRONMENTAL CONSERVATION			
Continue to expand Agricultural Security Areas to make more land eligible for easement purchase and to protect farmers against nuisance challenges.	✓	Short-range	Landowners, Twp. Supervisors and PCs
Adopt provisions that preserve farmland and natural areas.	✓	Continuous	Twp. Supervisors and PCs
In agricultural areas, permit a range of activities that allow opportunities for supplemental income for farmers on larger tracts of land.	✓	Continuous	Twp. Supervisors and PCs, Property-owners
Use other incentives and techniques outlined in the plan to keep farmers farming.	✓	Continuous	Twp. Supervisors and PCs, Property-owners
Consider proper controls on very intense Concentrated Animal Feeding Operations.	✓	Continuous	Twp. Supervisors and PCs
To protect water quality and fish habitats, carefully enforce State regulations on erosion control through on-site inspections.	✓	Short-range	Governing Bodies, PCs
Minimize unnecessary removal of trees during construction, and make sure temporary fencing is used to avoid damage to tree trunks and root systems.	✓	Short-range	Governing Bodies, PCs
Plainfield Township should continue to prohibit new buildings in the entire 100 year floodplain and to require studies by developers where there is any question that an unmapped floodplain may exist. The boroughs should continue to carefully regulate building in the floodplain.		Continuous	Governing Bodies, PCs, Property-owners
Seek Federal Floodplain Mitigation funds to offer to buy and remove the most flood-prone buildings.		Mid-range	Governing Bodies, PCs, Property-owners and business owners

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Require professional wetland studies whenever development is proposed in suspect areas and establish a 20 feet building setback around wetlands to avoid intrusions by construction equipment. Require a building and paving setback from all creeks. A smaller width is appropriate in more urban areas, while a larger width should be required in rural areas.		Contin- uous	Governing Bodies, PCs, Property-owners, PennDOT
Require groundwater supply studies to insure adequate water supply at the time any major new development is submitted for approval.	✓	Contin- uous	Twp. Supervisors, PCs and Staff
Use provisions in subdivision ordinances to require payment of recreation fees as part of major new residential developments.		Short- range	Governing Bodies, PCs, Property-owners
HISTORIC PRESERVATION Prepare a comprehensive inventory of historic sites.	✓	Short- range	Historic organiza- tions, PCs, PHMC
Consider alternative ways to preserve important historic buildings, such as requiring special zoning approval by the governing body or zoning hearing board before demolition is allowed.	✓	Contin- uous	Governing Bodies, PCs, Historic orga- nizations
Seek cost-effective ways of preserving historic buildings, including providing information and advice to property-owners. Promote greater interest in the region’s history and historic buildings.		Contin- uous	Municipal Staff, Historic organiza- tions
Consider zoning incentives to promote the preservation of historic buildings, such as allowing certain uses within restored historic buildings that otherwise would not be allowed in the zoning district. For example, a restored historic building in a residential district might be allowed to be used as an office or bed and breakfast inn.		Short- range	Governing Bodies, PCs
LAND USE PLAN AND HOUSING PLAN Update each municipality's development regulations to carry out the land use plan. All three municipalities should coordinate this effort to ensure consistency with the plan and to achieve common provisions.	✓	Short- term	PCs, Governing Bodies

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Use zoning regulations to direct most housing away from prime agricultural areas. Provide density incentives to build on lands (preferably with public water and sewage service) that are not planned for long-term agricultural preservation.	✓	Contin- uous	Twp. PCs, Property-owners, County Conser- vation District
Update zoning ordinances to make sure that all desirable types of businesses are allowed in appropriate business zoning districts. Hold requirements for special zoning approvals to a reasonable minimum and minimize setbacks between adjacent businesses. These steps are important to promote economic development and a wider choice of employment opportunities.	✓	Short- range	Governing Bodies, PCs
Update zoning ordinances to carefully control the types and locations of certain business uses near neighborhoods and <i>Town/ Village Center</i> areas. This particularly includes auto repair, motor vehicle sales, adult uses and similar uses that may cause nuisances for neighboring homes.	✓	Short- range	Governing Bodies, PCs
Carefully control the types of industrial uses through zoning ordinance requirements. Require "special exception" approval by the municipal zoning hearing board for the industrial uses that may generate significant hazards or nuisances.	✓	Contin- uous	Governing Bodies, PCs, ZHBs
Work with adjacent municipalities to ensure that compatible land uses and road patterns are in place.		Short- range	Governing Bodies, PCs, Adj. Municipi- palities
Emphasize code enforcement to avoid blight in neighborhoods. Consider a systematic housing inspection program for older rental units.	✓	Contin- uous	Governing Bodies
Encourage housing rehabilitation and seek grant funding from county and state housing rehabilitation programs for rehabilita- tion.	✓	Contin- uous	Governing Bodies, PA DCED, County
Direct most development to locations that can be efficiently served by public water and sewage services, to minimize the amount of land that is consumed by development.		Contin- uous	Governing Bodies, PCs
Work to increase home ownership by using programs to help persons afford closing costs of home purchases, and by providing other programs and incentives to home buyers.	✓	Contin- uous	County agencies, financial institu- tions, PHFA, PA DCED

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Make sure that local regulations and permit processes are as streamlined as is reasonable, to avoid unnecessary delays and higher housing costs.		Short-range	Governing Bodies, PCs, ZHBs, Municipal Staffs
ECONOMIC DEVELOPMENT			
Pursue the various economic development opportunities identified in the plan.	✓	Continuous	Governing Bodies, School District, LVEDC, CCs, Private sector
Make sure that local residents have the practical job skills needed by employers. - Work to combine job training funding with housing rehabilitation programs. - Emphasize jobs that are most likely to generate income and benefits are that sufficient to support a family.		Continuous	County agencies and job training organizations, School District
Strengthen older commercial areas in the <i>Town/Village Center</i> areas as business, entertainment, cultural and civic centers for the region. - Seek and use State funding and technical assistance. - Make streetscape enhancements, and building facade, sign and other improvements make the area more attractive.	✓	Continuous	Local merchants, CCs, Property-owners, Governing Bodies, Business associations, PA DCED
- Stress coordination among hours of businesses. Aggressively market older business areas to businesses and customers, particularly through joint promotions among nearby businesses. These joint promotions are more cost-effective than each business buying its own advertising. Use special events to attract additional numbers of visitors, customers and businesses to older business areas.		Continuous	Merchants, Business associations, CCs
- Identify and pursue opportunities for additional parking and for pedestrian safety improvements.		Continuous	Governing Bodies, Business associations
- Promote a balanced mix of uses in older commercial areas. Develop additional high quality upper story office space and market-rate upper story apartments.	✓	Continuous	Business associations, Governing Bodies, PCs

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
- Improve the appearance of the fronts of buildings and add landscaping to parking areas.		Continuous	Governing Bodies, PCs, Property-owners, Business associations, PA DCED
- Locate government offices in older business areas, to help generate foot-traffic that will provide customers for private businesses.		Continuous	County, State and Federal agencies
- Properly manage parking to serve different needs, with an emphasis upon making sure the most convenient spaces are available for high turnover by customers parking for less than 2 hours.		Continuous	Governing Bodies, Merchants
- Consider financial incentive programs to attract private investment into older business areas, such as tax abatement of improvements over a number of years, and low-interest funding for facade rehabilitation and fire safety improvements.		Continuous	Governing Bodies, LVEDC, PA DCED
- Improve pedestrian safety in the <i>Town/Village Center</i> areas, including additional extensions of curbs at intersections so pedestrians do not have to cross as great a distance across a street, more prominent crosswalks and “yield to pedestrians” signs.	✓	Continuous	Governing Bodies, Police, Borough Staffs
COMMUNITY FACILITIES AND UTILITIES PLAN Emphasize high-quality police, emergency medical and fire protection services. Promote regionalization of these services.	✓	Continuous	Emergency providers, Governing Bodies, Adj. Mun.
Continually explore ways to minimize local government expenses and increase revenues, including use of grants for community facilities and services.	✓	Continuous	Governing Bodies, Borough Staff
Provide high quality water and sewage service, with regular investments to provide reliable services.		Continuous	Governing Bodies, Municipal Authorities and water companies

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Implement the 14 specific recommendations listed in the water supply element of the plan to protect the amounts and quality of ground water.	✓	Continuous	Governing Bodies, PCs, Water companies
Make public sanitary sewer and community water service extensions in accordance with the plan (Map 2.3).		Continuous	Governing Bodies, Sanitary sewer and water service providers
Educate property owners about the importance of maintaining on-lot septic systems as part of a township sewer management program, and seek funding for on-lot septic system improvements.	✓	Continuous	Governing Bodies, PCs, SEOs, PA DCED, PA DEP
Continue to identify, monitor and address potential on-lot septic system problem areas such as in the Belfast area and other identified areas, as needed, to identify possible solutions to identified problem areas.		Continuous	Governing Bodies, PCs, SEOs, PA DEP
Continue to seek and use State grants and other funding (e.g., from landfill revenues, etc.) to address storm water improvements.		Continuous	Governing Bodies, PA DEP, PA DCED
Minimize the need for future storm sewers by preserving natural drainage channels and by requiring developers to provide proper storm water detention and drains through SALDO provisions.		Continuous	Governing Bodies, PCs, Developers
Improve existing parks and make land acquisitions as needed to meet a wide variety of recreational needs. Continue to cooperate with the Pen Argyl Area School District in efforts to provide recreation opportunities and maintain facilities.	✓	Continuous	Governing Bodies, Municipal and County Park and Recreation providers, PA DCNR, School District
Seek funding for and prepare a detailed Parks, Recreation and Open Space Plan for the region.		Short-range	Governing Bodies, PA DCNR
Establish new park, recreation and open space areas in accordance with the above plan.		Medium range	Governing Bodies, PA DCNR, Northampton County

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Pursue the opportunities identified in this plan and the Two Rivers Area Greenways Plan (in progress) for regional trail connections and greenways, especially connections from the Plainfield Recreation Trail to the Appalachian Trail, Wind Gap Borough, Pen Argyl Borough and Stockertown Borough; and, seek State and county funding to make these connections a reality.	✓	Short-range	Governing Bodies, PA DCNR, Northampton County, BSC
Foster stronger relationships with the Pen Argyl Area School District, and explore various ways of cooperation (see examples in the plan).	✓	Continuous	Governing Bodies, School District
TRANSPORTATION PLAN			
Work with PennDOT to carry out TIP projects and resolve traffic problems that involve State roads.	✓	Continuous	Governing Bodies, Adj. Municipalities, PennDOT, LVPC
Design residential streets to discourage use by through-traffic and improve major roads to relieve congestion so traffic will not be diverted to residential streets.		Continuous	PennDOT, LVPC, Governing Bodies, Adj. Municipalities
Adopt an "Official Map" to design locations where additional land will be needed to improve existing roads or to build new road connections. This type of Official Map allows a municipality to reserve land for improvements for a limited period of time.	✓	Short-range	Governing Bodies, PCs
Work to implement the "Suggested Road Improvements" listed in Table 2.3 of the transportation plan. Seek funding from State agencies and the private sector to assist with implementation.		Continuous	Governing Bodies, PCs, PennDOT, PA DCED, Private sector
Implement the traffic calming and access management recommendations outlined in the plan. Seek funding from State agencies and the private sector to assist in implementation assistance.		Short-range	Governing Bodies, PCs, PennDOT, PA DCED
Prepare a parking study to identify additional parking opportunities in Town/Village Center areas.		Short-range	Governing Bodies, PCs, PA DCED
Study the feasibility of reclassifying portions of Church Road and Delabole Road to collector road status.		Short-range	Governing Bodies, PCs, Municipal Engineers

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
Develop and include roadway design standards in SALDOs based on the functional road classifications and design principles in the transportation plan.		Short-range	Governing Bodies, PCs, Municipal Engineers
Continue to use a multi-year program for road repaving and reconstruction.		Continuous	Governing Bodies, Municipal Engineers, PennDOT
Study the potential for a PA 512 relief route and a new highway interchange north of the existing PA 33/PA 512 highway interchange.	✓	Short-range	Private sector, Governing Bodies, Adj. Municipalities, Green Knight DC, PennDOT
Improve pedestrian and bicycle access and periodically assess needs and opportunities for expanded public transit.		Continuous	Governing Bodies, PennDOT, LVPC, LVPC, Adj. Municipalities
<p>NATURAL FEATURES</p> <p>Protect important natural features, with a special emphasis upon the creeks, steep slopes, mature woods and important natural areas.</p> <ul style="list-style-type: none"> - Continually work to avoid and address stormwater problems. - Continue to limit development in flood-prone areas. - Work with neighboring municipalities, State agencies and volunteer organizations to preserve important natural areas. - Maintain and plant thick vegetation along streams to protect water quality and fishing habitats. 	✓	Continuous	PCs, ZHBs, Governing Bodies, Property-owners, Adj. Municipalities
Work together with other municipalities to coordinate the implementation of the Bushkill Creek Watershed Management Plan and the Two Rivers Area Greenway Plan (in progress).		Continuous	Governing Bodies, BSC, Property-owners, Adj. Municipalities
Establish an Environmental Advisory Council to assist with natural features protection and the identification of key parcels for acquisition.	✓	Short-range	Governing Bodies, BSC
Use the various “Tools” identified in the Natural Features Plan for Natural Areas Preservation.		Continuous	Governing Bodies, PCs

Pen Argyl—Plainfield—Wind Gap Regional Comprehensive Plan

Recommended Action	High Priority	Timing	Prime Responsibilities (see abbreviations at end of this table)
OTHER ITEMS			
Prepare and implement a 5-year Capital Improvement Program.	✓	Contin- uous	Governing Body, PC
Continue to seek and use State, Federal and County grants/ loans and other funding.		Contin- uous	Governing Body, PC, PA DCED, PA DCNR, PennDOT
Keep abreast of the various funding sources and financing techniques to assist in the funding of capital projects.		Contin- uous	Governing Body, PC

Abbreviations of Responsible Agencies/Groups:

- Governing Bodies = Borough Councils and the Township Board of Supervisors
- PCs = Municipal Planning Commissions
- ZHB = Zoning Hearing Boards
- Adj. Mun. = Adjacent Municipalities
- Ccs = Local and Regional Chambers of Commerce
- LVEDC = County Economic Development Office
- LVPC = Lehigh Valley Planning Commission
- PA DCED = Pennsylvania Department of Community and Economic Development
- PA DCNR = Pennsylvania Department of Conservation and Natural Resources
- PennDOT = Pennsylvania Department of Transportation
- PHFA = Pennsylvania Housing Finance Agency
- PHMC = Pennsylvania Historical and Museum Commission
- Twp. Supervisors = Township Supervisors
- BSC = Bushkill Stream Conservancy