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# APPENDICES

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# BACKGROUND PROFILES

# Demographic Profile

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## Introduction

Communities constantly change as the residents mature and marry, have children and go through the various stages of life. In addition, people are continually moving to and from the community. By studying demographic trends, a community can better understand the changes taking place and plan for the future needs of its residents. This section provides a picture of county and municipal trends that affect the region now and are likely to affect it in the future. Analysis of population trends, coupled with the housing analysis chapter, provides a context for making decisions about land use and the nature and intensity of development to be either encouraged or discouraged. Data included in this chapter are derived from the United States Census Bureau.

## Population

The population trends for the Region and Lancaster County are examined in Table 1. The table contains population statistics from the 1980 Census through the 2006 Census estimates.

### Regional Trends

- The Region has experienced substantial growth since 1980. The population increased by 59.5 percent from 1980 to 2006.
- The Region's population growth over that time period is more than 1 ½ times the population growth of Lancaster County as a whole.

### Municipal Trends

- Mount Joy Township has experienced the highest population growth since 1980, with a 102 percent increase.

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- Conoy Township experienced the smallest population growth within the Region, at 42.1 percent but the growth Conoy Township experienced is still higher than that of Lancaster County as a whole.
- Elizabethtown Borough experienced high growth rates from 1980-2000 but the U.S. Census 2006 estimate appears to indicate that the growth has substantially slowed since then. West Donegal Township saw very high growth rates in the 1970s, (30.7% growth from 1970-1980), but since the 1980s the growth rates of the Township have moderated.

**Table 1: Population Growth, 1980-2006**

Year	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Population	% Change	Population	% Change	Population	% Change	Population	% Change	Population	% Change	Population	% Change
1980	20,532	-	2,309	-	8,233	-	5,128	-	4,862	-	362,349	-
1990	24,471	19.2	2,687	16.4	9,952	20.9	6,227	21.4	5,605	15.3	422,822	16.7
2000	29,427	20.3	3,067	14.1	11,887	19.4	7,944	27.6	6,539	16.7	470,658	11.3
2006 Est.	32,747	11.3	3,261	6.3	11,897	0.1	10,359	30.4	7,230	10.5	494,486	5.1
<b>1980-2006</b>	<b>12,215 Increase</b>	<b>59.5 Increase</b>	<b>952 Increase</b>	<b>42.1 Increase</b>	<b>3,664 Increase</b>	<b>44.5 Increase</b>	<b>5,231 Increase</b>	<b>102 Increase</b>	<b>2,368 Increase</b>	<b>48.7 Increase</b>	<b>132,140 Increase</b>	<b>36.5 Increase</b>

Source: Lancaster County Planning Commission; US Census Bureau

## Age & Gender Statistics

The age composition of the population of the Region and Lancaster County are displayed in Table 2. Gender Characteristics can be seen in Table 3.

### Regional Trends

- The largest age group within the Region is the 35-44 year age group, at 16.5 percent of the population. This age group also makes up the largest population group in Lancaster County, at 15.7 percent of the total population.
- The Region has a higher percentage of the population in the 85 year and older age group than Lancaster County, reflective of the presence of Masonic Village and a desire of residents to “age in place”.

## Demographic Profile

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- Females make up the larger percentage within the Region at 52% of the total population.

### Municipal Trends

- Conoy Township has a higher percentage of its population in the 35-44 year age group than any of the other municipalities in the planning region, with 21.9 percent of its total population falling into this category.
- Elizabethtown Borough has the lowest percentage of population in the 5-14 years age group, with only 10.6 percent of the population in that age range. This figure appears to indicate that families with young children are locating in surrounding municipalities. Elizabethtown Borough has high percentage of its population in the 15-24 year age group, which is due to the influence of Elizabethtown College's location within the Borough.
- West Donegal Township has 19 percent of its population in the senior citizen age range (65+). When compared to the other municipalities in the Region and Lancaster County as a whole, West Donegal Township has the highest percentage of its population in the senior citizen age range indicative of the presence of Masonic Village.

# Demographic Profile

**Table 2: Age Group Characteristics, 2000**

Age Group	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population
< 5 Years	1,778	6.0%	186	6.1%	619	5.5%	591	7.4%	382	5.8%	32,680	6.9%
5-9 Years	2,046	7.0%	243	7.9%	667	5.6%	633	8%	503	7.6%	35,939	7.6%
10-14 Years	2,055	7.1%	281	9.2%	622	5%	631	7.9%	521	8%	36,290	7.7%
15-19 Years	2,293	7.8%	234	7.6%	1,191	10%	477	6%	391	6%	34,329	7.3%
20-24 Years	2,175	7.3%	127	4.1%	1,421	12%	374	4.7%	253	3.9%	29,246	6.2%
25-34 Years	3,843	13%	358	11.7%	1,632	13.7%	1,188	15%	665	10.2%	59,093	12.6%
35-44 Years	4,831	16.5%	673	21.9%	1,543	13%	1,447	18.2%	1,168	17.9%	74,092	15.7%
45-54 Years	3,764	12.7%	441	14.4%	1,273	10.7%	1,156	14.6%	894	13.7%	62,360	13.2%
55-59 Years	1,270	4.3%	138	4.5%	418	3.5%	424	5.3%	290	4.4%	22,425	4.8%
60-64 Years	946	3.2%	113	3.7%	343	2.9%	261	3.3%	229	3.5%	18,144	3.9%
65-74 Years	1,792	6.2%	150	4.9%	711	6%	453	5.7%	478	7.3%	32,706	6.9%
75-84 Years	1,741	5.9%	102	3.3%	871	7.3%	263	3.3%	505	7.7%	24,389	5.3%
>85 Years	903	3%	21	0.7%	576	4.8%	46	0.6%	260	4%	8,965	1.9%
<b>Total</b>	<b>29,437</b>	<b>100%</b>	<b>3,067</b>	<b>100%</b>	<b>11,887</b>	<b>100%</b>	<b>7,944</b>	<b>100%</b>	<b>6,539</b>	<b>100%</b>	<b>470,658</b>	<b>100%</b>

Source: US Census Bureau

**Table 3: Gender Characteristics, 2000**

Gender	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population
Male	14,101	48%	1,565	51%	5,362	45.1%	3,967	49.9%	3,207	49	229,806	48.8%
Female	15,336	52%	1,502	49%	6,525	54.9%	3,977	50.1%	3,332	51	240,842	51.2%
<b>Total</b>	<b>29,437</b>	<b>100%</b>	<b>3,067</b>	<b>100%</b>	<b>11,887</b>	<b>100%</b>	<b>7,944</b>	<b>100%</b>	<b>6,539</b>	<b>100%</b>	<b>470,658</b>	<b>100%</b>

Source: US Census Bureau

- Conoy Township is the only municipality within the Region that there are a higher percentage of males than females.
- Elizabethtown Borough has the largest gap in the percentages of males and females. Females make up 54.9 percent of the population while males only make up 45.1 percent of the population.

# Demographic Profile

## Race & Ethnicity Characteristics

The race and ethnicity characteristics are displayed in Table 4 and Table 5.

### Regional Trends

- The largest percentage of the Region’s population is white, at 97.3 percent. The Region’s percentage of people in this category is higher than that of Lancaster County.
- The Region has a lower percentage of Hispanic population than Lancaster County by over 4 percentage points.

### Municipal Trends

- Elizabethtown Borough has the highest Asian population in the planning region.
- Mount Joy Township and Elizabethtown Borough have the highest proportion of Hispanic population, both at 1.4% of their total population.
- Conoy Township has the highest percentage of Whites and not Hispanic population, both being over 99 percent.

Table 4: Characteristics of Race, 2000

Race	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population
White	28,626	97.3%	3,035	99	11,450	96.3%	7,717	97.1%	6,424	98.2%	431,106	91.6%
Black or African American	146	0.5%	1	0	107	0.9%	20	0.3%	18	0.3%	12,722	2.7%
American Indian or Alaska Native	42	0.1%	4	0.1%	21	0.2%	11	0.1%	6	0.1%	575	0.1%
Asian	266	0.9%	5	0.2%	146	1.2%	85	1.1%	30	0.5%	6,563	1.4%
Native Hawaiian and other Pacific Islander	13	0%	1	0%	5	0%	4	0.1%	3	0%	81	0.0%
Some other race	137	0.4%	9	0.3%	54	0.5%	57	0.7%	17	0.3%	13,397	2.8%
Population of two or more races	207	0.8%	12	0.4%	104	0.9%	50	0.6%	41	0.6%	6,214	1.3%
<b>Total</b>	<b>29,437</b>	<b>100%</b>	<b>3,067</b>	<b>100%</b>	<b>11,887</b>	<b>100%</b>	<b>7,944</b>	<b>100%</b>	<b>6,539</b>	<b>100%</b>	<b>470,658</b>	<b>100%</b>

Source: US Census Bureau

# Demographic Profile

Table 5: Ethnicity Characteristics, 2000

Race	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population	Persons	% of Population
Not Hispanic or Latino	29,083	98.7%	3,041	99.2%	11,715	98.6%	7,834	98.6%	6,493	99.3%	444,207	94.4%
Hispanic or Latino	354	1.3%	26	0.8%	172	1.4%	110	1.4%	46	0.7%	26,451	5.6%
<b>Total</b>	<b>29,437</b>	<b>100%</b>	<b>3,067</b>	<b>100%</b>	<b>11,887</b>	<b>100%</b>	<b>7,944</b>	<b>100%</b>	<b>6,539</b>	<b>100%</b>	<b>470,658</b>	<b>100%</b>

Source: US Census Bureau

## Household & Income Characteristics

Table 6 displays the household sizes and the average household size within the planning region and Lancaster County. Table 7 displays the household income for the planning region and for Lancaster County.

### Regional Trends

- The average household size for the Region is 2.74, which is only slightly higher than the average household size for Lancaster County.
- The largest percentage of household income for the Region falls into the \$60,000-\$74,999 household income range.

### Municipal Trends

- Elizabethtown Borough has the smallest average household size within the Region, at 2.31 persons.
- Mount Joy Township has the largest percentage of households with an income in the range of \$75,000-\$99,999. This is also the largest group within Mount Joy Township at 15.1 percent of all households in Mount Joy Township falling into this range.
- West Donegal has the highest percentage of households with an income in the \$100,000-\$124,999 range, double that of Lancaster County.



# Demographic Profile

- Conoy Township has the largest average household size at 2.78 persons.

**Table 6: Household Size, 2000**

Size	Region	Conoy Township	Elizabethtown Borough	Mount Joy Township	West Donegal Township	Lancaster County
1-Person	2,551	208	1314	491	538	39,818
2-Person	3805	359	1490	1058	898	60,672
3-Person	1802	224	654	543	381	27,847
4-Person	1648	204	532	498	414	25,238
5-person	681	70	207	233	171	11,378
6-Person	187	40	58	33	56	4,075
7-Person	72	0	11	45	16	3,532
Total Households	10,746	1105	4266	2901	2474	172,560
<b>Average Household Size</b>	<b>2.74</b>	<b>2.78</b>	<b>2.31</b>	<b>2.74</b>	<b>2.61</b>	<b>2.64</b>

Source: US Census Bureau

**Table 7: Household Income, 1999**

Income	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Count	% of Households	Count	% of Households	Count	% of Households	Count	% of Households	Count	% of Households	Count	% of Households
<\$10,000	477	4.4%	30	2.6%	250	5.8%	111	3.8%	86	3.5%	10,041	5.8%
\$10,000-\$14,999	503	4.6%	40	3.5%	280	6.6%	98	3.5%	85	3.4%	8,528	4.9%
\$15,000-\$19,999	502	4.6%	50	4.1%	222	5.3%	77	2.6%	153	6.2%	9,595	5.6%
\$20,000-\$24,999	615	5.7%	41	3.5%	313	7.4%	123	4.2%	138	5.5%	10,886	6.3%
\$25,000-\$29,999	656	6.2%	109	9.8%	276	6.5%	173	6%	98	3.9%	11,410	6.3%
\$30,000-\$34,999	608	5.6%	44	3.6%	237	5.5%	225	7.8%	102	4.1%	11,287	6.5%
\$35,000-\$39,999	682	6.3%	72	6.5%	332	7.8%	154	5.3%	124	5.1%	11,723	6.8%
\$40,000-\$44,999	772	7.2%	88	7.8%	394	9.3%	147	5%	143	5.8%	11,770	6.8%
\$45,000-\$49,999	731	7.1%	108	9.8%	271	6.4%	190	6.6%	162	6.6%	10,599	6.1%
\$50,000-\$59,999	1,265	11.7%	95	8.5%	439	10.4%	403	13.9%	328	13.3%	19,032	11%
\$60,000-\$74,999	1,514	14.1%	202	18.2%	504	11.8%	411	14.2%	397	16.1%	22,245	12.9%
\$75,000-\$99,999	1,332	12.4%	123	11.1%	489	11.5%	435	15.1%	285	11.5%	18,865	10.9%
\$100,000-\$124,999	656	6.2%	79	7.7%	154	3.6%	180	6.3%	243	9.8%	8,236	4.8%
\$125,000-\$149,999	202	1.9%	20	2%	31	0.8%	77	2.6%	74	2.9%	3,331	1.9%
\$150,000-\$199,999	123	1.2%	8	0.7%	23	0.6%	45	1.6%	47	2%	2,721	1.6%
>\$200,000	83	0.8%	5	0.6%	28	0.7%	42	1.5%	8	0.3%	2,511	1.5%
<b>Total Households</b>	<b>10,721</b>	<b>100%</b>	<b>1,114</b>	<b>100%</b>	<b>4,243</b>	<b>100%</b>	<b>2,891</b>	<b>100%</b>	<b>2,473</b>	<b>100%</b>	<b>172,780</b>	<b>100%</b>

Source: Lancaster County Planning Commission

Median income and poverty level characteristics are shown in Table 8.

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## Regional Trends

- The median income for the Region is higher than the median income of Lancaster County.
- The Region also has a much lower percentage of families below the poverty level than Lancaster County.

Table 8: Income Characteristics, 1999

Type	Region	Conoy Township	Elizabethtown Borough	Mount Joy Township	West Donegal Township	Lancaster County
Median Household Income	\$49,468	\$48,775	\$42,752	\$52,410	\$53,935	\$45,507
Percent of Families Below Poverty Level	2%	3%	3.3%	1.6%	0.4%	7.8%

Source: US Census Bureau

## Educational Attainment Statistics

Table 9 displays the educational trends within the planning region and Lancaster County.

## Regional Trends

- The Region has a higher percentage of persons having a bachelor’s degree and professional or graduate degree than Lancaster County which may be due to the fact the Elizabethtown College is located within Elizabethtown Borough.
- The Region also has a much lower percentage of persons without a high school diploma than Lancaster County.

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Table 9: Educational Attainment, 2000

Race	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Total	Persons	% of Total	Persons	% of Total	Persons	% of Total	Persons	% of Total	Persons	% of Total
Less than 9 <sup>th</sup> grade	920	4.8%	94	4.6%	334	4.5%	231	4.5%	261	5.8%	28,031	9.3%
9 <sup>th</sup> to 12 <sup>th</sup> grade, no diploma	1,868	9.7%	283	13.9%	799	10.8%	405	7.8%	381	8.5%	40,451	13.4%
High school graduate	7,968	41.7%	1,129	55.5%	2,931	39.7%	2,214	42.7%	1,694	37.7%	117,501	38.8%
Some college, no degree	2,723	14.3%	202	9.9%	982	13.3%	717	13.8%	822	18.3%	40,847	13.5%
Associate degree	1,049	5.5%	113	5.6%	314	4.3%	320	6.2%	302	6.7%	13,634	4.5%
Bachelor's degree	2,966	15.5%	176	8.6%	1,273	17.2%	875	16.9%	642	14.3%	41,643	13.8%
Graduate or professional degree	1,611	8.5%	39	1.9%	754	10.2%	427	8.2%	391	8.7%	20,396	6.7%
Total Population >25 years	<b>19,105</b>	<b>100%</b>	<b>2,036</b>	<b>100%</b>	<b>7,387</b>	<b>100%</b>	<b>5,189</b>	<b>100%</b>	<b>4,493</b>	<b>100%</b>	<b>302,503</b>	<b>100%</b>

Source: US Census Bureau

## Population Projections

The five projections that were considered and their methodology are explained below:

### *Five Methods for Projecting Population*

#### Cohort Projection with Migration

The cohort projection with migration assesses natural increases and decreases in the population, based upon birth and death rates obtained from the Pennsylvania Department of Health. Historic rates of increase/decline in the municipality are compared with the natural increases/decreases to determine trends in migration into or out of the area, assuming that any change not accounted for by natural increases or decreases is a result of migration into or out of the municipality. A projection is formed based upon natural increases/decreases in the population, natural age progression, and historic migration patterns.

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## Cohort Projection without Migration

The cohort projection without migration assesses natural increases and decreases in the population of an area based upon birth and death rates obtained from the Pennsylvania Department of Health. The age of individuals and the natural age projection is also considered in formulating this projection.

## Exponential Projection

The exponential method calculates future population based upon an assumed exponential increase in the population based upon historic population trends.

## Linear Projection

The linear projection model determines future growth based on a steady rate ( $m$ ) of increase/decline from historic population values. Previous population statistics are evaluated to determine the average rate that the population is changing.

## Lancaster County Projection

To determine population projections for the municipalities in Lancaster County, four different, simple projection methods were applied. These four results were then averaged to determine a final projection. The population projection for the entire county was calculated with a cohort component method. These projections were used as control totals for the municipal population projections.

The model used for the municipal projections involves the use of four different simple projection methods. For each method, municipalities' population is projected and then adjusted to fit the county total for the three projection years 2010, 2020, and 2030. Then, the four methods are averaged for each projection year to create a final projection. The four methods used are:

- Method one averaged the 10-year growth rate from 1980-1990, and 1990-2000 for each municipality. Each municipality's average growth rate was then used to project 2010, 2020, and 2030. For each projection year, the county population total was compared to the control total projected by the cohort-component

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method. An adjustment factor was calculated using the county totals and applied to each municipality.

- Method two averaged the numerical population increase from 1980-1990, and 1990-2000 for each municipality. Each municipality’s average increase was used to project the increase between 2000-2010, 2010-2020, and 2020-2030. For each projection year, the county population total was compared to the control total and applied to each municipality.
- Method three averaged each municipality’s share of the county growth from 1980-1990, and 1990-2000. Each municipality’s average share of growth was applied to the overall county growth predicted by the cohort component method to project the growth for that municipality. No adjustment was needed, because the county control total was used in the calculation.

Method four kept each municipality’s percent of the total county population in 2000 constant. So, the county’s population projected by the cohort-component method in 2010, 2020, and 2030 was assigned to each municipality in the same proportion it was in 2000.

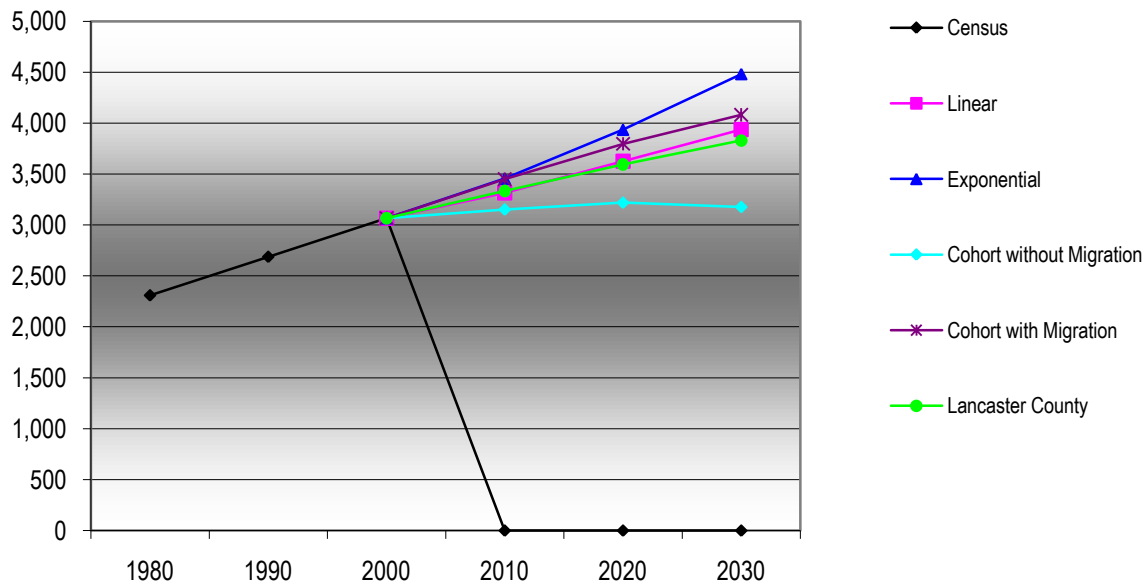
The population projections for the Region are listed in the following tables:

Year	Census	Linear	Exponential	Cohort without migration	Cohort with migration	Lancaster County Projection
1990	2,687	2,687	2,687	2,687	2,687	2,687
2000	3,067	3,067	3,067	3,067	3,067	3,067
2010	***	3,314	3,456	3,153	3,449	3,334
2020	***	3,625	3,936	3,220	3,797	3,595
2030	***	3,936	4,482	3,178	4,082	3,829

Source: US Census Bureau; Lancaster County Planning Commission: RETTEW Associates

# Demographic Profile

**Figure 1: Conoy Township Population Projection**



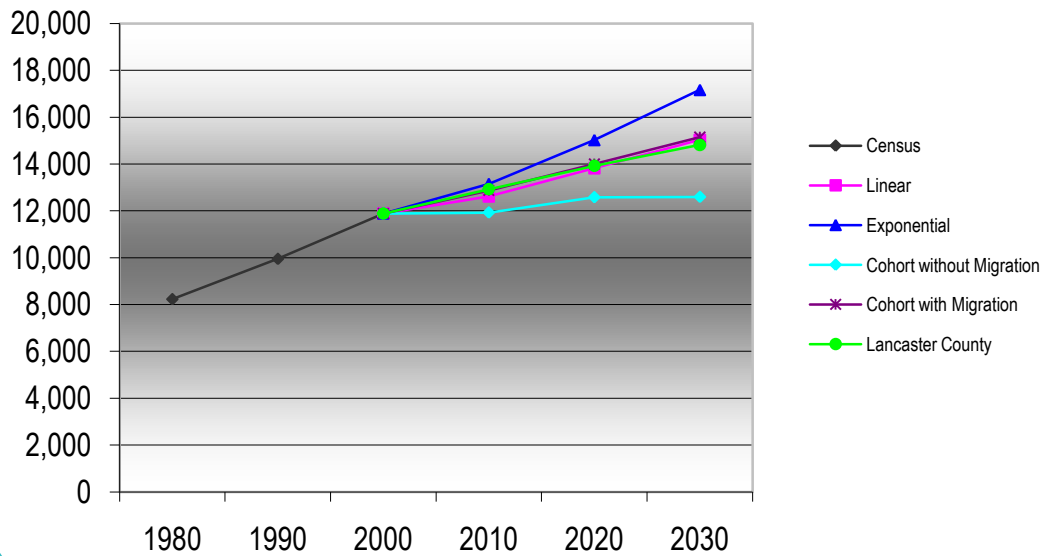
**Table 11: Elizabethtown Borough Population Projections**

Year	Census	Linear	Exponential	Cohort without migration	Cohort with migration	Lancaster County Projection
1990	9,952	9,952	9,952	9,952	9,952	9,952
2000	11,887	11,887	11,887	11,887	11,887	11,887
2010	***	12,613	13,150	11,927	12,869	12,923
2020	***	13,822	15,024	12,582	13,998	13,924
2030	***	15,032	17,166	12,596	15,148	14,816

Source: US Census Bureau; Lancaster County Planning Commission; RETTEW Associates

# Demographic Profile

**Figure 2: Elizabethtown Borough Population Projections**



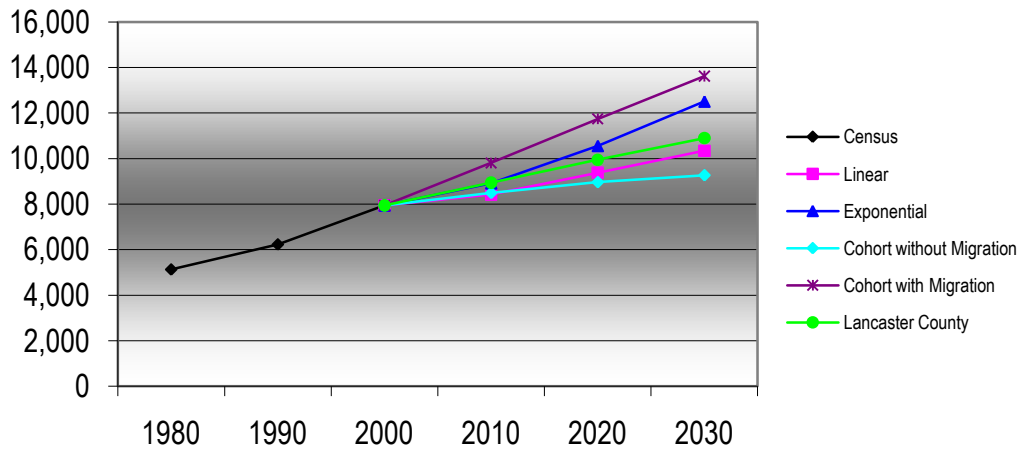
**Table 12: Mount Joy Township Population Projections**

Year	Census	Linear	Exponential	Cohort without migration	Cohort with migration	Lancaster County Projection
1990	6,227	6,227	6,227	6,227	6,227	6,227
2000	7,944	7,944	7,944	7,944	7,944	7,944
2010	***	8,418	8,913	8,492	9,801	8,941
2020	***	9,380	10,557	8,963	11,739	9,946
2030	***	10,342	12,504	9,264	13,617	10,896

Source: US Census Bureau; Lancaster County Planning Commission: RETTEW Associates

# Demographic Profile

**Figure 3: Mount Joy Township Population Projections**



**Table 13: West Donegal Township Population Projections**

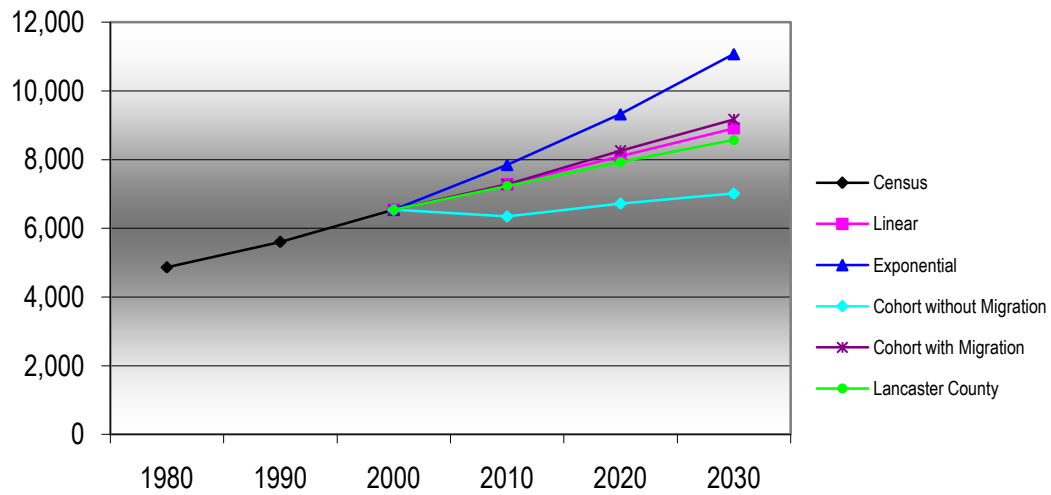
Year	Census	Linear	Exponential	Cohort without migration	Cohort with migration	Lancaster County Projection
1990	5,605	5,605	5,605	5,605	5,605	5,605
2000	6,539	6,539	6,539	6,539	6,539	6,539
2010	***	7,277	7,848	6,348	7,283	7,233
2020	***	8,095	9,324	6,724	8,257	7,927
2030	***	8,913	11,077	7,016	9,169	8,570

Source: US Census Bureau; Lancaster County Planning Commission; RETTEW Associates



# Demographic Profile

**Figure 4: West Donegal Township Population Projections**



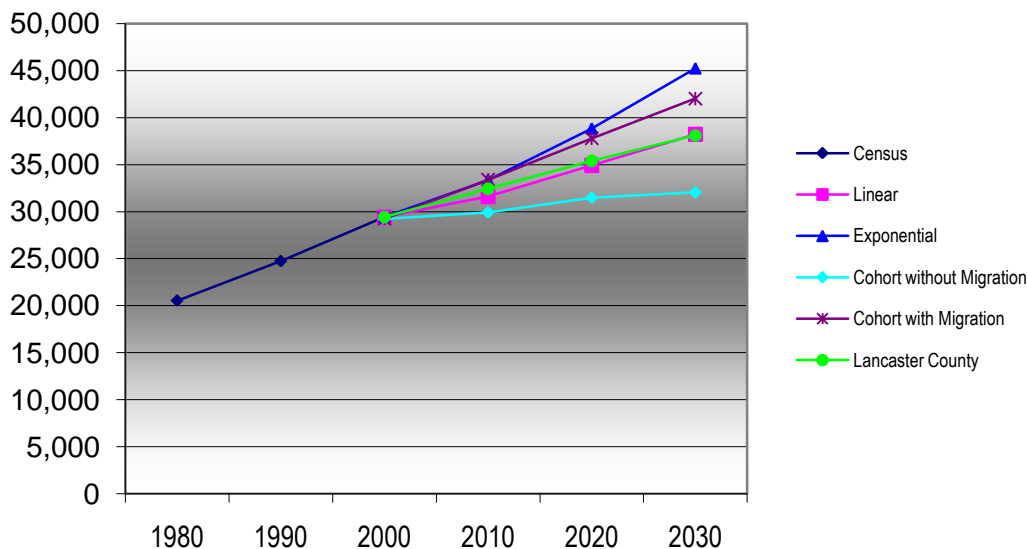
**Table 14: Region Population Projections**

Year	Census	Linear	Exponential	Cohort without migration	Cohort with migration	Lancaster County Projection
1990	24,471	24,471	24,471	24,471	24,471	24,471
2000	29,427	29,427	29,427	29,427	29,427	29,427
2010	***	31,622	33,367	29,920	33,402	32,431
2020	***	34,922	38,841	31,489	37,791	35,392
2030	***	38,225	45,229	32,054	42,016	38,111

Source: US Census Bureau; Lancaster County Planning Commission: RETTEW Associates

# Demographic Profile

**Figure 5: Region Population Projections**



## Analysis

The recommended projection for each municipality in the Region is listed below as well as an explanation as to why that projection was chosen.

- **Conoy Township:**

The 2006 Census population estimate for Conoy Township is 3,261. This is almost an additional 200 people since 2000. That is a rate of 33 people per year and 330 people per decade. Using the 2006 estimate figure that projects a population of 3,400 in 2010, 3,730 in 2020 and 4,060 in 2030. Those estimates are in line with the cohort with migration projection method shown in Table 10.

Based on the building permit data for Conoy Township from 2000-2007 there would be an additional 551 people per decade. In 2010 the building permit data projects 3,618 people, in 2020 the population would be 4,169 and in 2030 the population would be 4,720 people. The building permit data suggests that the population is growing faster than any of the

## Demographic Profile

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projection methods suggest. The Township's waterfront location and proximity to metropolitan areas like Lancaster, Harrisburg and Hershey has resulted in strong building permit trends this decade. Township officials reviewed the projection methods' results, the 2006 estimate projections and the building permit information in light of community facilities capacity and growth management goals. Conoy Township anticipates a 2010 population of approximately 3600 and will modify its zoning to manage growth and achieve a target population of 4000 people in 2030.

- Elizabethtown Borough:

The 2006 Census population estimate for Elizabethtown Borough is 11,997 which is only a growth of 10 people since the 2000 Census. This estimate may be slightly understated due to the fact the Elizabethtown Borough is an attractive place to live and additional dwelling units have been built this decade. The building permit data was looked at to gain a better prospective on what the population could be in the future. The building permit data projects an additional 489 people per decade. In 2010 the population projection would be 12,376, the 2020 projection is 12,865 people and in 2030 the projection is 13,354 people. However, Borough officials recognize that there is a very limited amount of buildable land left in the Borough and until more dense, multi-story residential redevelopment takes place, the pace of population growth in the Borough will be slow. Borough officials selected the populations projected within the Cohort without migration projection for the Borough, which anticipate growth to just roughly 12,600 by 2020.

- Mount Joy Township

The 2006 census population estimate for Mount Joy Township is 10,359 people versus the actual 2000 population of 7,944. That is a growth rate of 2,415 people in 6 years or 4,020 per decade. Using the 2006 population estimate to project the future population would result in a projection of 11,964 for 2010, 15,984 in 2020 and 20,004 in 2030. The 2006 population

## Demographic Profile

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estimate exceeds every projection for 2010, which suggests that the 2006 estimate may be overstated. The building permit data for Mount Joy Township also provides projections that well exceed the other projection methods. In 2010 the building permit data predicts that the population would be 10,464, for 2020 the projection is 12,984 and in 2030 the projection is 15,504. Mount Joy Township experienced a boom in terms of building permits being issued in 2001 to 2003. At the highest point there were 211 dwelling unit permits issued. However since 2004 the number of building permits being issued for dwellings has decreased dramatically, which reflects the declining housing market. In 2007 there were only 10 permits issued for dwellings. Township officials' anticipate continued growth at this decade's average pace of building permit issuance through 2020 resulting in a target population of approximately 13,000 as noted above. Then the effects of limited amounts of land still available and zoned for residential development will slow the population growth to less than recent building permit pace with an anticipated population of 14,800 in 2030.

- West Donegal Township:

The 2006 Census population estimate for West Donegal Township is 7,230 people versus the 2000 Census population of 6,359. That is an estimated growth of 691 people in 6 years. Using that figure you can estimate 115 additional people per year or 1150 people per decade. So the projection using the 2006 estimate for 2010 would be 7,869, for 2020 the projection would be 8,839 people and for 2030 the projection would be 9,989 people. These estimates fall in between the exponential and the cohort with migration projection methods. Using the building permit data from West Donegal Township you can estimate an additional 925 people per decade. This projects 7,464 people for 2010, 8,389 people for 2020 and 9,314 people for 2030.

However, West Donegal Township officials indicate that approvals currently exist for developments that total 800 homes. Overall, the

## Demographic Profile

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Township anticipates growth to be strong over the next several years with a slowing pace thereafter (due to tight water supply among limiting factors). The Township anticipates a return to a strong pace in the several years leading up to 2030 after limiting factors have been addressed. With an anticipated population of 10,600 by 2030, the Township sees its 2010 population at about 8,400 and 9,100 in 2020.

# Existing Land Use Profile

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## Introduction

Land use, historical, current and future has an impact on every element of planning. It is very important that this Regional planning effort analyze how land is currently being used in conjunction with population projections and current land use trends like building permits in order to effectively plan for all future needs. All land use decisions have impacts on the Region. These decisions not only impact the character and look of the community but they also have significant impacts on traffic patterns, residential patterns, population centers, economic vitality and community facilities.

## Land Use Characteristics

Data from Lancaster County's GIS Landbase was used to create the *Existing Land Use Map* for the region (found at the end of this profile). The land was divided into the following categories based on the information provided by Lancaster County's GIS Landbase:

- Agriculture- This land use category makes up the largest portion of the land area in the planning Region, totaling 66 percent. This includes such activities as livestock and products, specialty farms, fish game and wildlife preserves, field crops, orchard crops, nursery and greenhouses, and other agriculture related activities.
- Forestry- This land use category contains approximately 6 percent of the total land area within the Region. Activities that take place within this land use category include private wild forest lands, hunting and fishing clubs, State owned forest land, watershed forest lands and other forestry related lands.
- Recreational and Cultural Activities- This land use category makes up a very small portion of the Region with approximately 88.3 acres (0.2%) of

## Existing Land Use Profile

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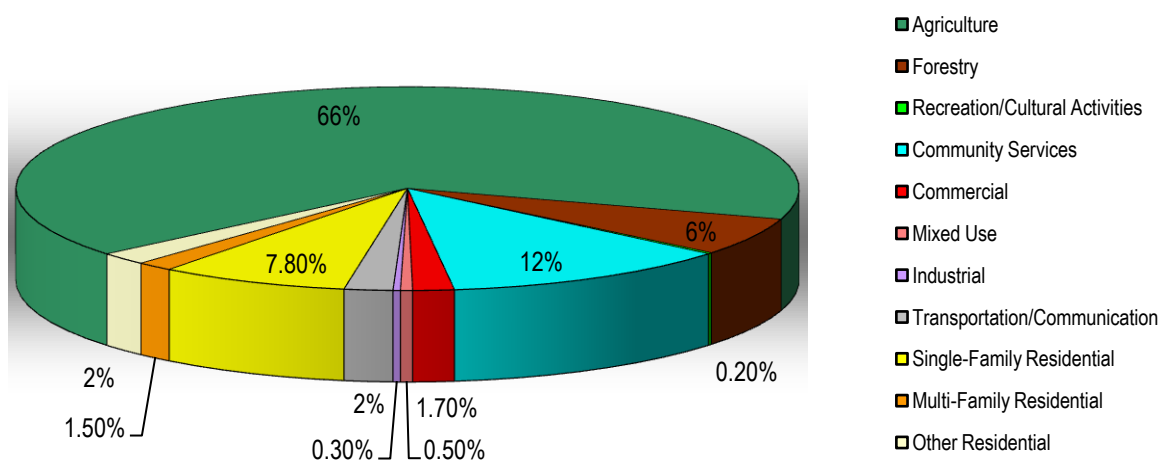
land. Land use activities in this category can include nature exhibitions, tourist activities, historical sites, museums and art galleries, fraternal and civic organizations, places of public assembly, recreational and sports activities, camps, and parks.

- Community Services- The community services land use makes up approximately 7,203.56 acres (12%) of the land in the Region. Community service activities can include hospitals and other healthcare facilities, libraries, schools, colleges and universities, places of worship, retirement homes, municipal buildings and other governmental centers.
- Commercial- The commercial land use designation contains approximately 1055.75 acres (1.7%) of the total land area in the Region. Activities can include dining establishments, motor vehicle services, retail services, storage, warehouse and distribution facilities, banks and office buildings.
- Mixed Use- The mixed use category makes up a small portion of the land with approximately 316.23 acres (0.5%) of land. This land use designation is comprised of a commercial use that has dwelling units within the same structure.
- Industrial- Industrial land use activities only make up 902.26 acres (1%) of the total land within the Region. Those activities include manufacturing and processing, heavy industrial uses, light industrial uses, quarrying and landfills and scrap or junk yards.
- Transportation and Communication- Transportation and Communication activities make up approximately two (2) percent of the land in the planning Region. Activities can include railroad transportation, motor vehicle transportation, aircraft transportation, marine craft transportation, highway and street right of ways, automobile parking, telephone communications, radio and television communications, cable TV operations and electric, gas, water, sewage and solid waste utilities.

## Existing Land Use Profile

- Other Residential- Two (2) percent of the land in the Region falls under the other residential land use category. Land activities can include estates, rural residence with under 10 acres of land with 1-3 dwelling units, parsonage, seasonal residence, mobile home, hotels, motels, tourist homes and other living accommodations.
- Multi-Family Residential- 963.54 acres (1.5%) of land in the Region fall into the multi-family residential category. Land use activities include year round residence with anywhere from 2-8 dwelling units, including townhouses apartment buildings and condominiums.
- Single Family Residential- The single family residential land use designation makes up approximately 7.8 percent of the land in the Region. This land use activity is comprised of a single dwelling unit per structure.

**Figure 1: Land Use Percentages**





## Existing Land Use Profile

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Significant land uses in the region include the PA Department of Corrections Training Academy, Elizabethtown College, Masonic Village Retirement Community, Elizabethtown Senior High School and Middle School and Conewago Industrial Park.

### Interrelationships with Transportation Network

Land use has a major impact on the amount of traffic generated within the Region. Two major traffic generating land uses within the Region are Masterfoods USA and Masonic Homes. During shift changes and at quitting time at these two locations large amounts of traffic are on the roads. The 2006 Draft Elizabethtown Area Regional Transportation Study noted that Masterfoods USA is proposing an expansion that would create an additional 100 jobs and would result in an additional 20 large truck deliveries a week. Masonic Homes is planning an expansion as well, which will also increase the amount of traffic on the routes that lead to and from the retirement community.

Route 230 is classified as a minor arterial route which is defined by a high level of traffic and a low to moderate level of land access. However, the land uses that are along Route 230, especially through Elizabethtown Borough do not match the functional classification of Route 230. There are major land uses with access points near or along Route 230, plus several other major industrial uses and commercial uses, as well as some higher density residential areas.

# Transportation Profile

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## Introduction

Over the past century, people have become increasingly more mobile; this increase in mobility for people and products has led to an increased sense of freedom and a perceived decrease in barriers that are thought to occur as a result of distance alone. Therefore, a safe and efficient transportation system that eases mobility directly contributes to the quality of life in an area. The system provides mobility for people, products, and emergency services and must account for various modes of transit, including automobiles, trucks and freight vehicles, rail traffic, air transit, emergency services vehicles, bicycles and non-motorized traffic, and pedestrians. Understanding the composition, efficiency, and adequacy of a community's transportation system is essential.

The location, quality, and availability of transportation facilities also have a direct impact on the type of development, or redevelopment that is likely to occur in an area. Well planned transportation improvements can help to encourage ideal redevelopment projects. This section will inventory the existing transportation network within the Region.

## Functional Classification

Functional Classification of roadways in Lancaster County was prepared by the Lancaster County Planning Commission and was updated in August 2006. The document classifies both urban and rural highways. Roads are classified to aid in identifying problem areas and allocating improvement and maintenance resources. Classifications aid in developing and modifying design standards and guidelines. The classifications are also used as a guide for land use decisions and help ensure adequate capacity. The functional classification of the roads within the region can be seen on the Functional Classification map following this profile. The definitions of each road classification are listed below:

## Transportation Profile

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- Principal Arterial is defined by a very high level of traffic mobility and a low level of land access, typically having the highest traffic volumes and highest speeds, with four or more lane facilities. There tends to be fully or partially controlled access. Principal arterials connect major population and activity centers and ideally they have the greatest spacing of intersections.
- Minor Arterial is defined by a high level of traffic mobility and a low to moderate level of land access, typically having fairly high traffic volumes and speeds, with two lane facilities and turning lanes at major intersections. Typically there is no access control but some may contain proliferation of driveways. Minor arterials connect the central city with the boroughs and have fairly close spacing of intersections.
- Major Collector is defined by a slightly higher emphasis on providing traffic mobility versus land access, with moderate traffic volumes and speeds, two lanes, and major intersections having turning lanes. There is no access control and it often contains many driveways. Major collectors serve major population and activity centers with respect to traffic mobility and land access and interconnects boroughs with villages and cross road communities.
- Minor Collector is defined by providing fairly equal traffic mobility and land access, with low-to-moderate traffic volumes and speeds and typically contains two lane facilities. There is no access control and it contains many driveways. Minor collectors serve the same population centers as the major collectors and tend to have close spacing of intersections.
- Local Collector is defined by a slightly higher emphasis on providing land access than traffic mobility, with low-to-moderate traffic volumes and speeds and typically has two lane facilities. There is typically no access control and there are many driveways. Local collectors serve the same population centers as the major collectors and tend to have close spacing of intersections.

## Transportation Profile

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- Local is defined by a very low level of traffic mobility and a high level of land access, with low traffic volumes and speeds and two lane facilities. There is no access control and they have the greatest number of driveways. Local roads serve to access land uses in major population and activity centers with the closest spacing of intersections.

It is vital to a community's quality of life that the functional classifications of the roadways throughout the Region are understood, especially when planning for the future. Having a thorough understanding of the classifications of the roadways within the Region allows for the planning of proper roadway maintenance and improvements and it also aids in avoiding misuse and failure of the transportation network.

Roadway classification definitions do not always fit reality. There are certain instances where some major routes that are classified as providing more mobility and less access seem to provide more access and less mobility even though they are classified otherwise. There are also cases where the access points are limited along these routes but the access points that do exist attract large amounts of traffic that the mobility of the major routes suffer.

### Traffic Volumes

Table 1 shows the functional classifications and average annual daily traffic counts for the major routes in the planning region. There are several roads within the Region that exceed 10,000 vehicles per day, including Market Street (Rt. 230), Bainbridge Road (Rt. 241), Route 283, Route 743 and Cloverleaf Road.

# Transportation Profile

**Table 1: Summary of State Road Characteristics**

Road Name	State Route Number	Functional Classification	Est. Average Daily Traffic	Est. Average Daily Truck Traffic
West Hanover Street	Rt. F200	Major Collector	239	12
Market Street	Rt. 0230	Minor Arterial	6,608-26,130	462-1,829
Mount Joy Street	Rt. 0031	Major Collector	2,440	24
Groff Ave	Rt. 0032	Major Collector	2,123-2,456	106-123
College Ave	Rt. 0034	Major Collector	3,065	30
Bainbridge Road	Rt. 0241	Major Collector	5,399-13,680	158-756
Route 283	Rt. 0283	Principal Arterial Highway	19,100-23,508	2,951-3,526
River Road	Rt. 0441	Minor Arterial	4,187-6,300	405-523
Maytown Rd./ Hershey Rd./ Hanover St.	Rt. 0743	Major Collector and Minor Arterial	5,173-12,486	138-500
Donegal Springs Rd.	Rt. 4002	Minor Collector	735	52
Stackstown Road	Rt. 4004	Minor Collector	359-522	11-44
Stone Mill Drive	Rt. 4006	Local Collector	212	19
Turnpike Road/ Elizabethtown Road	Rt. 4008	Minor Collector	768-4,681	46-373
Mt. Pleasant Road	Rt. 4010	Local Collector	742	67
E. Harrisburg Ave and Anchor Road	Rt. 4018	Minor Collector	2,132-2,301	92-192
Oberholtzer Road	Rt. 4023	Local Collector	569	51
Cloverleaf Road	Rt. 4025	Minor Arterial	14,311	1,288
Sunnyburn Road	Rt. 4039	Local Collector	1007	91

Source: PennDOT

## Transportation Areas of Concern

The November 2006 Draft Elizabethtown Area Regional Transportation Plan points out specific areas of concern and prioritizes which areas need to be addressed first. Listed below are the top five areas of concern from the draft plan and a few areas of concern from Conoy Township, who was not a participant in the Elizabethtown Area Regional Transportation Plan.

- Market Street (Rt.230) and Cloverleaf Road Corridor:  
According to the average daily traffic counts conducted by PennDOT the average number of vehicles traveling along Market Street (Rt. 230) ranges from 6,608 vehicles to 26,130 vehicles. The average daily truck traffic along that route ranges from 462 trucks to 1,829 trucks. Market Street is classified as a minor arterial road however the average daily traffic along the road exceeds that of Route 283 which is classified as a principal arterial highway. Cloverleaf Road has an average daily traffic count of 14,311 vehicles and an

## Transportation Profile

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average daily truck count of 1,288 trucks. Cloverleaf Road is classified as a local collector. The Elizabethtown Area Regional Transportation Plan calls for a retiming and upgrade of the interconnected traffic signals along Market Street and Cloverleaf Road. This would allow for better flow of traffic and the effects would aid both short term issues and long term issues.

- **Market Street (Route 230) and Maytown Road(743) Intersection:**  
Both Market Street and Maytown Road have high traffic volumes and the intersection lacks proper access which adds to the congestion of the area. The suggested improvements would add a right turn lane for northbound Maytown Road, a right turn lane for eastbound Market Street and a left turn lane for eastbound Market Street onto the relocated Spruce Street. Spruce Street access from eastbound Market Street would be closed and the street would be converted to a one-way eastbound street.
- **Route 743 and Foreman Road Intersection:**  
This intersection has safety concerns so to address the safety concerns an intersection realignment has been proposed. This would eliminate two stop controlled approaches at the intersection and encourage more free flowing movement.
- **Route 230 and Newville Road:**  
There are safety concerns along these roads concerning speed and through movement of Route 230 being hindered. The Draft Elizabethtown Area Regional Transportation Plan proposes adding a 200-foot deceleration lane and revising the pavement markings.
- **Bainbridge Road (Rt. 241):**  
Bainbridge Road in Conoy Township is a highly traveled road and historically has had many accidents. The road is quite narrow and several of the intersections along the road have safety issues.

# Transportation Profile

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- River Road (Route 441):  
River Road is a highly traveled roadway and the road design contributes to many accidents. The roadway is designated as an arterial road but provides a significant amount of land access which contributes to the number of car accidents along the roadway.
- Route 230/ Cloverleaf Road/ Route 743  
Route 230 is the main Northwest/Southeast through route within the Region. Cloverleaf Road and Route 743 are the main connectors to Route 283 thus creating a heavy traffic burden and alternative routes, resulting in back road and neighborhood cut through traffic.

## Non-Motorized Transportation

The 2006 draft Elizabethtown Regional Transportation Plan recommended that the municipalities cooperate to develop pedestrian and bicycle routes and implement guidelines within the region. There is a strong desire within the Region to connect the developments and community facilities with non-motorized pathways, although up to this point, none of the municipalities require such facilities through their subdivision and land development ordinances.

## Public Transportation

Red Rose Transit Authority (RRTA) provides bus service that connects Lancaster City to Elizabethtown Borough. RRTA does not provide any bus or other transit services to the remaining municipalities within the planning area. Service levels are threatened due to pending federal funding reallocations. The Lancaster congressional delegation was instrumental in having the reallocations pushed back to the end of September 2009 but it is only temporary relief.

## Transportation Profile

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Amtrak's Keystone service route travels through the Region. The station is located in Elizabethtown Borough and connects the Region to major metropolitan areas such as Harrisburg, Lancaster, Philadelphia and New York. There are currently efforts being made to enhance the train station and rail service.

The Region does not have any official park and ride facilities, however there are several locations where people have created unofficial park and ride areas. Lancaster County Transportation Authority prepared a feasibility study for park and ride facilities in January of 2004. This feasibility study identified two potential sites for park and ride facilities in Mount Joy Township. The first site with potential for a park and ride facility would be along PA 743 northbound-Southeast side of Route 283 and the second site identified was along Cloverleaf Road-southwest side of Route 283. The analysis concluded that park and ride facilities in either of these locations would significantly relieve roadway congestion by providing a location aside from the road shoulders that would be readily accessible, highly visible and well lit.

### Air Transit

The proximity of the Region to major airports like Harrisburg International airport, Philadelphia International Airport, Baltimore-Washington Airport and the Lancaster Airport is an attractive asset for the community. All the major airports listed are less than a two hour drive from the Region and the proximity to Harrisburg International Airport is especially convenient for residents within the Region.

### Highway Transportation Improvement Program

The following table contains the projects within the planning region listed on the 2009-2012 Lancaster County Transportation Improvement Program:



# Transportation Profile

Project Name/Location	Municipality	Project Description
PA743 Hershey Rd Bridge over Conewago Creek	Mount Joy Twp.	Bridge Replacement
SR4008 Elizabethtown Rd. Over Little Chiques Creek	Mount Joy & Rapho Twps.	Bridge Replacement
SR4010 Risser Mill (Mt. Pleasant Rd.) Over Little Chiques Creek Trib.	Mount Joy Twp.	Bridge Replacement
SR4033 Meadow View Road Bridge over Little Chiques Creek	Mount Joy & Rapho Twps.	Bridge Replacement
T310 Newville Road Bridge Over Amtrak	W. Donegal Twp.	Bridge Replacement
College Avenue (S. Market-Bainbridge St.) Ph 2	Elizabethtown Boro.	
SR4008 East High St. & SR 0241 Bainbridge Rd. (SR 0230 to Borough line)	E. Donegal & Mt. Joy Twps, E-town Boro.	Resurface-Highway Restoration

## Interrelationships with Land Use

Land use has a major impact on the amount of traffic generated within the Region. Two major traffic generating land uses within the Region are Masterfoods USA and Masonic Homes. During shift changes and at quitting time at these two locations large amounts of traffic are on the roads. The 2006 Draft Elizabethtown Area Regional Transportation Study noted that Mars is proposing an expansion that would create an additional 100 jobs and would result in an additional 20 large truck deliveries a week. Masonic Homes is planning an expansion as well, which will also increase the amount of traffic on the routes that lead to and from the retirement community.

Route 230 is classified as a minor arterial route which is defined by a high level of traffic and a low to moderate level of land access. However, the land uses that are along Route 230, especially through Elizabethtown Borough do not match the functional classification of Route 230. There are major land uses with access points near or along Route 230, plus several other major industrial uses and commercial uses, as well as some higher density residential areas.

# Economic Profile

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## Introduction

The economic conditions of a community have a significant impact on the quality of life for residents within that community. Understanding the current economic conditions will aid in determining the future business development potential. An attractive community with a high quality of life and a system of local government that is responsive to the needs of business owners will be better suited economically than a community which lacks these characteristics. This chapter analyzes several economic indicators including the number and types of industries and unemployment rates.

## Employment Characteristics

Table 1 displays the employment characteristics for the planning area and for Lancaster County for 2000.

### Regional Trends

- The largest percentage of the workforce in the region is in manufacturing, which is similar to Lancaster County.
- The Agriculture, forestry, fishing, hunting and mining industry makes up the smallest percent of the workforce within the region, at 2.7 percent.
- The Region's unemployment rate is 1.3 percent which is lower than Lancaster County's unemployment rate at 3 percent.

### Municipal Trends

- West Donegal Township has the lowest unemployment rate at 0.8 percent of the working age population.

## Economic Profile

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- Elizabethtown Borough has the highest percentage of its workforce in educational, health and social services reflective of several school district facilities and Elizabethtown College located within the Borough.
- Conoy Township has the highest percentage of its workforce in the manufacturing industry at 26.8 percent, which is a higher percentage than the other municipalities in the Region and Lancaster County.
- Mount Joy Township has 4.9 percent of its workforce in the agriculture, forestry, fishing, hunting and mining industries, which is much higher than the other municipalities within the Region and Lancaster County.

# Economic Profile

**Table 1: Employment Characteristics, 2000**

Industry	Region		Conoy Township		Elizabethtown Borough		Mount Joy Township		West Donegal Township		Lancaster County	
	Persons	% of Workforce	Persons	% of Workforce	Persons	% of Workforce	Persons	% of Workforce	Persons	% of Workforce	Persons	% of Workforce
Agriculture, forestry, fishing and hunting, and mining	419	2.7%	29	1.7%	90	1.5%	210	4.9%	90	2.9%	6,735	2.9%
Construction	936	6.3%	152	8.9%	249	4.1%	344	8%	191	6.1%	18,242	7.7%
Manufacturing	2,923	19.2%	459	26.8%	988	16.1%	857	19.8%	619	19.9%	53,028	22.5%
Wholesale Trade	627	4%	107	6.2%	255	4.2%	157	3.6%	108	3.5%	10,734	4.6%
Retail Trade	1,521	10%	174	10.2%	623	10.2%	315	7.3%	409	13.1%	30,563	13%
Transportation and warehousing and utilities	777	5%	113	6.6%	256	4.2%	237	5.5%	171	5.5%	10,157	4.3%
Information	383	2.5%	14	0.8%	156	2.5%	162	3.7%	51	1.6%	4,388	1.9%
Finance, insurance, real estate, and rental and leasing	578	3.8%	80	4.7%	241	3.9%	159	3.7%	98	3.1%	10,432	4.4%
Professional, scientific, management, administrative, and waste management services	1,079	7%	113	6.6%	514	8.4%	227	5.3%	225	7.2%	15,674	6.7%
Educational, health and social services	3,676	24%	257	15%	1,722	28.1%	920	21.3%	777	24.9%	42,794	18.2%
Arts, entertainment, recreation, accommodation and food services	1,016	6.7%	89	5.2%	521	8.5%	276	6.4%	130	4.2%	15,856	6.7%
Other services (except public admin.)	898	5.9%	100	5.8%	337	5.5%	322	7.5%	139	4.5%	12,332	5.2%
Public Administration	455	2.9%	27	1.6%	183	3%	136	3.1%	109	3.5%	4,751	2%
<b>Employed civilian population 16 years and over</b>	<b>15,288</b>	<b>100%</b>	<b>1,714</b>	<b>100%</b>	<b>6,135</b>	<b>100%</b>	<b>4,322</b>	<b>100%</b>	<b>3,117</b>	<b>100%</b>	<b>235,686</b>	<b>100%</b>
*Persons unemployed	303	1.3%	42	1.8%	111	1.1%	109	1.8%	41	0.8%	7,329	3%
*Persons not in labor force	7,575	32.6%	577	24.7%	3,580	36.4%	1,573	26.2%	1,845	36.8%	115,114	32.1%

\*Percentages are based on total population, age 16 and older.

Source: U.S. Census Bureau

# Economic Profile

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## Major Employers

The major employer data for the Region was collected from the Center for Workforce Information, a division of PA Department of Labor and Industry. It includes businesses within the planning area that employ more than 250 employees.

- Elizabethtown Area School District
- Elizabethtown College
- Masonic Village
- Mars

## Mid-size Private Employers

The mid-size employment data was collected from the Center for Workforce Information and includes businesses within the planning area that employ 100-250 employees.

- Hanover Cold Storage
- Highline International
- Maurice Sporting Goods
- Eastern Agricultural
- Longenecker Hatchery
- Rheems Nursing Center
- Giant Foods
- Manor Care
- Holiday Inn Express
- McDonalds
- K-Mart
- Continental Press
- Groff Meats
- Crowe
- Weis

# Economic Profile

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## Overview

One of the elements of the region's vibrancy is its economic diversity and strength. A healthy manufacturing base that includes Mars is broadened by the activity in the Conewago Industrial Park. The region benefits from some other unique economic generators such as Elizabethtown College and the Masonic Village. Economic activity continues to expand at the region's two interchanges on Route 283.

Regional economic efforts with the Elizabethtown downtown business district at their heart are pursued by the Elizabethtown Economic Development Corporation. The 2002 *Exploiting Opportunities to Strengthen Elizabethtown's Central Business District* report continues to guide central business district focused efforts. The Report spotlights business district strengths that include strong regional population growth, a healthy employment base, a solid local tax base, and a stable public sector/political environment. All the municipalities within the Region had 2000 unemployment rates, reflected in Table 1, under 2 percent, which is very low. The highest unemployment rate within the Region was 1.8 percent and the lowest was 0.8 percent.

The report also highlights a number of mid-sized private employers in the region as noted above. More recently, efforts to locate an ethanol production plant in Conoy Township have placed the region squarely in the debate over how to deal with the nation's fossil fuel dependency. Large employers in neighboring Dauphin and York Counties including Hershey Foods, Wellspan Healthsource Referral, Johnson Controls Inc., Penn State Medical Complex, Pinnacle Health Community General and numerous public sector employees provide attractive employment opportunities for residents of the Region.

# Housing Profile

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## Introduction

The quality and condition of housing is extremely important to the growth and prosperity of the county. Attractive, affordable housing and well maintained neighborhoods assure a sound tax base that will continue to appreciate in value and ensure that residents live in an environment that is conducive to a healthful and pleasing life. Where substandard or deteriorated conditions exist, public and private action is necessary to prevent the spread of these conditions and to restore these areas to a sound state.

This chapter will analyze the types and location of housing in the planning Region and investigate recent trends and their impacts on the housing stock and its ability to provide for and appeal to the existing population and the future population.

## Housing Unit Characteristics

The predominant type of housing according to the 2000 U.S. Census in all four municipalities in the planning region was 1-unit detached homes. Elizabethtown Borough had the lowest percentage of 1-unit detached homes at 41.5 percent but had the largest percentages of all the other types of housing, which is consistent with most boroughs. Conoy Township had the highest percentage of 1-unit detached homes at 76.6 percent and did not have any structures in the 10-19 units range or the 20 or more units range.

For the most part single family detached dwellings have dominated the market, especially in the Region's townships. More recently developments show a mixture of housing types including townhouses. Townhouses also serve as infill within the Borough.

Table 1 represents the housing units for each of the municipalities in the Northwest planning region and for Lancaster County as a whole.

# Housing Profile

Table 1: Housing Units, 2000

Units in Structure	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units
<b>1-unit, detached</b>	861	76.6%	1,720	67.2%	1,856	41.5%	2,028	68.6%	100,952	58.1%
<b>1-unit, attached</b>	57	5.1%	334	13.0%	946	21.1%	414	14.0%	34,044	18.9%
<b>2 units</b>	32	2.8%	45	1.8%	277	6.2%	79	2.7%	7,867	4.4%
<b>3 or 4 units</b>	34	3.0%	35	1.4%	461	10.3%	105	3.6%	8,837	4.9%
<b>5-9 units</b>	21	1.9%	15	0.6%	373	8.3%	69	2.3%	8,559	4.8%
<b>10-19 units</b>	--	--	14	0.5%	122	2.7%	17	0.6%	4,515	2.5%
<b>20 or more units</b>	--	--	347	13.6%	438	9.8%	9	0.3%	6,679	3.7%
<b>Mobile Home</b>	119	10.6%	50	2.0%	--	--	236	8.0%	8,502	4.7%
<b>Total Units in Structure</b>	<b>1,124</b>	<b>100%</b>	<b>2,560</b>	<b>100%</b>	<b>4,473</b>	<b>100%</b>	<b>2,957</b>	<b>100%</b>	<b>179,995</b>	<b>100%</b>

Source: U.S. Census Bureau, 2000

## Housing Value Characteristics

In 2000, the \$100,000 to \$149,999 home value range was the most represented in all four municipalities and was the most represented in Lancaster County as a whole. West Donegal was the only municipality in the Region that had homes valued in the \$500,000 to \$999,999 range. West Donegal also had the highest median home value at \$130,400. Elizabethtown Borough had the lowest median home value at \$110,200. Elizabethtown Borough also had a high percentage of homes in the \$50,000 to \$99,000 value range. Conoy Township, West Donegal Township and Mount Joy Township all had higher median home values than Lancaster County in 2000.

Table 2 displays the housing values for the Region and Lancaster County.



# Housing Profile

Value	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units	Count	Percentage of Total Units
Less than \$50,000	3	.04%	15	0.9%	7	0.3%	8	0.4%	1,919	1.9%
\$50,000 to \$99,000	168	24.9%	285	17.5%	841	37.2%	520	26.6%	29,951	29.1%
\$100,000 to \$149,999	327	48.5%	856	52.5%	1,098	48.6%	891	45.6%	44,173	42.8%
\$150,000 to \$199,999	141	20.9%	269	16.5%	252	11.2%	355	18.2%	16,265	15.8%
\$200,000 to \$299,999	32	4.7%	196	12.0%	61	2.7%	164	8.4%	7,911	7.7%
\$300,000 to \$499,999	3	0.4%	--	--	--	--	16	0.8%	2,207	2.1%
\$500,000 to \$999,999	--	--	9	0.6%	--	--	--	--	619	0.6%
\$1,000,000 or more	--	--	--	--	--	--	--	--	51	0%

Source: U.S. Census Bureau, 2000

Table 3 displays the median home values for various years for the Region. The table also displays the median home values for Lancaster, Dauphin and York Counties, which all have an impact on the housing values within the planning Region.

Year	Conoy Township	West Donegal Township	Elizabethtown Borough	Mount Joy Township	Lancaster County	Dauphin County	York County
1990	\$75,800	\$83,500	\$91,100	\$88,200	\$89,400	\$71,300	\$79,700
2000	\$125,500	\$130,400	\$110,200	\$121,800	\$119,300	\$99,900	\$110,500
2005	\$165,090	\$182,900	\$145,000	\$144,900	--	--	--
2006*	--	--	--	--	\$171,900	\$136,200	\$159,500

Source: U.S. Census Bureau ; Lancaster County Planning Commission  
 \*2006 U.S. Census Bureau's American Community Survey Estimate

**All four municipalities saw a significantly higher median home value in the 2000 census than in the 1990 census.** The 1990 census median home value in Conoy Township was \$75,800 while the 2000 median value was \$125,500, an increase of \$49,700. West Donegal Township had the second highest increase with an increase of \$46,200 from the 1990 value. Mount Joy Township had an increase in the median value of homes of \$30,700. Elizabethtown Borough had experienced an increase of \$26,700. These large increases in the median housing value reflect a large amount and the high cost of new housing built in the decade of the 1990's.

# Housing Profile

Such market trends continued into 2007, as noted in Table 3, and could suggest that the affordability of housing for the average worker in the Region could become a challenge and should be monitored.

## Housing Tenure & Occupancy Characteristics

Owner occupied housing is the largest category in all four municipalities in the planning region. Elizabethtown does have the highest rate of renter occupied housing in the Region with 40.9 percent. This high number of renter-occupied housing is in part due to Elizabethtown College being located in the Borough.

Table 4 displays the housing tenure for each municipality and Lancaster County for 2000.

**Table 4: Housing Tenure, 2000**

Tenure Type	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total
<b>Owner</b>	913	82.6%	1,873	75.7%	2522	59.1%	2,413	83.2%	122,264	70.9%
<b>Renter</b>	192	17.4	601	24.3%	1,744	40.9%	488	16.8%	50,296	29.1%
<b>Total</b>	<b>1,105</b>	<b>100%</b>	<b>2,474</b>	<b>100%</b>	<b>4,266</b>	<b>100%</b>	<b>2,901</b>	<b>100%</b>	<b>172,560</b>	<b>100%</b>

Source: U.S. Census Bureau, 2000

Table 5 shows occupancy and vacancy rates for housing in 2000 in the Region. Vacancy rates between 4 and 6 percent are considered healthy rates while anything lower may indicate that there is a housing shortage and could potentially lead to inflated prices. Higher vacancy rates may indicate a surplus of housing and may lead to deflated prices. Conoy Township and Mount Joy Township have very low vacancy rates both under 2 percent.

**Table 5: Occupancy Status**

Tenure Type	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total
<b>Occupied</b>	1,105	98.3%	2,474	96.6%	4,266	95.4%	2,901	98.1%	172,560	95.9%
<b>Vacant</b>	19	1.7%	86	3.4%	207	4.6%	56	1.9%	7,430	4.1%
<b>Total</b>	<b>1,124</b>	<b>100%</b>	<b>2,560</b>	<b>100%</b>	<b>4,473</b>	<b>100%</b>	<b>2,957</b>	<b>100%</b>	<b>179,990</b>	<b>100%</b>

Source: U.S. Census Bureau, 2000

# Housing Profile

## Age of Housing & Rental Values

The age of housing in the Region and Lancaster County is displayed in Table 6. More than one-third of the homes built in Conoy Township were built in 1939 or earlier. West Donegal Township and Mount Joy Township had the majority of their housing built over a period of 24 years, 1970-1994. Elizabethtown Borough had the majority of its housing built before 1949, however Elizabethtown Borough also experience some growth in terms of homes being built, between 1980 and 1994. The percentage of and years in which the housing was built in the Region generally fall in line with the homes built in Lancaster County.

**Table 6: Age of Housing**

Year Structure was Built	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total
<b>1999 to March 2000</b>	21	1.9%	47	1.8%	29	0.6%	62	2.1%	3,338	1.85%
<b>1995 to 1998</b>	63	5.6%	233	9.1%	186	4.2%	356	12%	10,993	6.11%
<b>1990 to 1994</b>	76	6.8%	507	19.8%	588	13.1%	411	13.9%	15,592	8.66%
<b>1980 to 1989</b>	180	16%	406	15.9%	680	15.2%	569	19.2%	28,523	15.85%
<b>1970 to 1979</b>	213	19%	475	18.6%	333	7.4%	509	17.2%	27,147	15.08%
<b>1960 to 1969</b>	90	8%	186	7.3%	524	11.7%	241	8.2%	18,828	10.46%
<b>1940 to 1959</b>	86	7.7%	349	13.6%	967	21.6%	263	8.9%	29,672	16.49%
<b>1939 or earlier</b>	395	35.1%	357	13.9%	1,166	26.1%	546	18.5%	45,897	25.5%
<b>Units in Structure</b>	<b>1,124</b>	<b>100%</b>	<b>2,560</b>	<b>100%</b>	<b>4,473</b>	<b>100%</b>	<b>2,957</b>	<b>100%</b>	<b>179,990</b>	<b>100%</b>

Source: U.S. Census Bureau, 2000

Table 7 displays the rental values for housing in the planning region and in Lancaster County for the year 2000. Conoy Township, Mount Joy Township and Elizabethtown Borough’s median rental values are consistent with the median rental value in Lancaster County. West Donegal Township’s median rental value is much higher than the other municipalities in the planning region reflective of rental housing values at Masonic Village.

# Housing Profile

Gross Rent	Conoy Township		West Donegal Township		Elizabethtown Borough		Mount Joy Township		Lancaster County	
	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total	Count	Percent of Total
Less than \$200	--	--	--	--	37	2.1%	--	--	1,348	2.8%
\$200 to \$299	9	5.1%	7	1.2%	25	1.4%	--	--	1,789	3.7%
\$300 to \$499	60	33.7%	57	9.9%	595	34.1%	138	31.9%	13,057	27%
\$500 to \$749	78	43.8%	75	13%	820	47%	203	47%	21,380	44.2%
\$750 to \$999	12	6.7%	34	5.9%	211	12.1%	82	19%	6,324	13.1%
\$1,000 to \$1,499	5	2.8%	201	35%	32	1.8%	--	--	1,872	3.9%
\$1,500 or more	--	--	164	28.5%	6	0.3%	--	--	880	3.6%
No cash rent	14	7.9%	37	6.4%	18	1%	9	2.1%		
<b>Total</b>	178	100%	575	100%	1,744	100%	432	100%	46,650	100%
<b>Median Rent Value</b>	<b>\$530</b>		<b>\$1,334</b>		<b>\$561</b>		<b>\$570</b>		<b>\$572</b>	

Source: U.S. Census Bureau, 2000

## Housing Affordability

Lancaster County Planning Commission conducted a housing affordability study in 2005 by municipality for the entire County. Listed below are the results of that study for each municipality in the Region:

- Conoy Township:**  
 The median household sale price in Conoy Township was \$165,090 and the total monthly housing cost of a home at that price would be \$1,337. Most financial institutions recommend that your total housing cost be no more than 30 percent of your total monthly income. In 2005 the median household monthly income was \$4,799 in Conoy Township and 30 percent of that income would be \$1,440. In order to meet 30 percent of your monthly income and be able to afford the median sale price a household would need to make at least \$4,458 a month. According to the study Conoy Township’s percent of total income being used for housing costs is 28 percent which is considered to be reasonably affordable. In comparison to the other municipalities in Lancaster County, Conoy Township ranks as one of the more affordable municipalities in terms of housing in the entire County.

## Housing Profile

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- Mount Joy Township:

The median household sale price in Mount Joy Township was \$144,900 and the total monthly housing cost of a home at that price would be \$1,200. In 2005 the median household monthly income was \$5,043 in Mount Joy Township and 30 percent of that income would be \$1,513. In order to meet 30 percent of your monthly income and be able to afford the median sale price a household would need to make at least \$3,999 a month. According to the study Mount Joy Township's percent of total income being used for housing costs is 24 percent which is considered to be affordable. In comparison to the other municipalities in Lancaster County, Mount Joy Township ranks third in the County for having affordable housing. Mount Joy Township is also considered to be the most affordable in terms of housing in the planning Region.

- West Donegal Township:

The median household sale price in West Donegal Township was \$182,900 and the total monthly housing cost of a home at that price would be \$1,502. In 2005 the median household monthly income was \$5,115 in West Donegal Township and 30 percent of that income would be \$1,535. In order to meet 30 percent of your monthly income and be able to afford the median sale price a household would need to make at least \$5,008 a month. According to the study West Donegal Township's percent of total income being used for housing costs is 29 percent which is considered to be reasonably affordable. In comparison to the other municipalities in Lancaster County, West Donegal Township ranks in the middle of the pack in terms of affordability of housing.

- Elizabethtown Borough:

The median household sale price in Elizabethtown Borough was \$145,000 and the total monthly housing cost of a home at that price would be \$1,218. In 2005 the median household monthly income was \$3,821 in Elizabethtown Borough and 30 percent of that income would be \$1,146. In order to meet 30 percent of your monthly income and be able to afford

## Housing Profile

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the median sale price a household would need to make at least \$4,060 a month. According to the study Elizabethtown Borough's percent of total income being used for housing costs is 32 percent. This percentage is slightly over what is recommended but in comparison to the other municipalities in Lancaster County, Elizabethtown Borough falls in the middle in terms of relative affordability.

### Future Housing Needs

Based on the 2020 populations anticipated by each municipality and using each municipality's average household size measured by the 2000 Census, the number of additional housing units needed by each municipality to accommodate their anticipated population growth can be calculated.

With a 2020 anticipated population of roughly 3,800, Conoy Township is predicting growth in its population of 733 people since 2000. With an average household size of 2.78 people per household, this population growth translates into an additional 264 homes being needed between 2000 and 2020. With building permit data indicating that 158 dwelling units were issued building permits since 2000, an additional 106 dwelling units would be needed from now until 2020 to meet the needs of the anticipated 2020 population.

Elizabethtown Borough's 2020 anticipated population of roughly 12,600 translates into population growth of 613 people from the year 2000. A total of 265 new houses would be needed by that time to house that number of new people based on a Borough household size of 2.31. With building permits for 148 new dwelling units having already been issued in the Borough over the first seven years of this decade, an additional 117 dwelling units would be needed from now until 2020 to meet the housing needs of the anticipated 2020 population.

Mount Joy Township has projected a 2020 population of approximately 13,000. This is an increase of 5,056 people over the 2000 population of 7,944. A total of 1,845 new houses would be needed to accommodate that growth based on a household

## Housing Profile

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size of 2.74 in the Township. Building permits for this decade reflect 760 new homes built in the Township from 2000 through 2007, leaving 1,085 still to be built to meet the housing needs of the anticipated 2020 population.

With a 2020 anticipated population of roughly 8,900, West Donegal Township is predicting growth in its population of 2,561 people since 2000. With an average household size of 2.61 people per household, this population growth translates into an additional 905 homes being needed between 2000 and 2020. With building permit data indicating that 248 dwelling units were issued building permits since 2000, an additional 657 dwelling units would be needed from now until 2020 to meet the needs of the anticipated 2020 population. Township officials estimate that as of now, plans are under review or have been approved for an additional 650 homes in the Township.

Otherwise, interest in single family detached dwellings remains strong across the region. Residents moving in from outside of the region and some of those in the baby boom generation are increasing demand for townhouse, condominium style living that comes with less property maintenance responsibilities. Masonic Village in West Donegal Township has helped meet that demand from some residents in the past.

# Community Facilities Profile

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## Introduction

Community facilities not only enhance the quality of life for residents but they are also a very important component in the development of an area. Community facilities include not only public services but private services as well. These services and facilities can include parks and recreation, utilities, school district, police, fire and ambulance services. Current capacity, future requirements and the potential demand for these facilities and services are evaluated so that the Region can be prepared to provide these services if the need should arise.

## Open Space, Parks & Recreation

There are several park and recreational facilities located within the Region. Listed below are both public and private park and recreation facilities located within each municipality in the planning region (School properties are listed as they offer recreational facilities as well as educational facilities):

### Conoy Township

- Kreider Tract Park:  
Intermunicipal Park with 30 acres, located along the Susquehanna River at the southern tip of Conoy Township.
- Conoy Canal Park:  
Owned and maintained by Conoy Township, Conoy Canal Park is comprised of 49 acres of land and is located along the Susquehanna River.
- Conoy American Legion Park:  
Private park owned by the American Legion. The park is comprised of 2.3 acres along the Susquehanna river.



## Community Facilities Profile

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- **Bainbridge Elementary School Property:**  
Owned by Elizabethtown Area School District, the school property is 3.3 acres and is located along Front Street.
- **Conoy Creek Park:**  
Owned by Conoy Township the park is 33.8 acres and located along Conoy Creek.
- **Bainbridge Playground:**  
Owned by Conoy Township the playground consists of 0.8 acres of land and is located along Arch Street and Pine Alley.
- **Conoy Township Park:**  
Owned by Conoy Township, the park consists of 6.7 acres and is located along Governor Stable Road.

### West Donegal Township

- **Newville Park:**  
Owned by West Donegal Township, the park consists of 0.8 acres and is located along Turnpike Road.
- **Rustic Meadows Camping and Golf Resort:**
- **Rheems Elementary School Property:**  
The school property consists of 6.5 acres and is located along Robinson Drive.
- **Rheems Athletic Association Field:**  
Owned by West Donegal Township the land is approximately 5.2 acres and is located along Robinson Drive.
- **West Donegal Township Civic Park:**

# Community Facilities Profile

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Owned by West Donegal Township the park is comprised of 12.1 acres of land and is located along Ridge Road.

## Elizabethtown Borough

- **Elizabethtown Borough Community Park:**  
Owned by Elizabethtown Borough, the park consists of 20.8 acres of land and is located along Conoy Creek.
- **Poplar Street Park:**  
Poplar Street Park is owned by GEARS and the Community Center and has a total of 9.3 acres of land along Conoy Creek.
- **Hickory Lane Park:**  
The park is a 15 acre parcel primarily open space with a wooded area along Conoy Creek.
- **Elizabethtown Area High School and Middle School Property:**  
The school property consists of 17.2 acres and is located along High Street.
- **Elizabethtown Area Community Center**
- **Mill Road Elementary School:**  
7.5 acres of land located along Elm Ave.
- **East High Street Elementary School:**  
School District property that consists of 23 acres along High Street and includes part of the land used by the annual Elizabethtown Fair.
- **Willowood Park:**

## Community Facilities Profile

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A 10 acre park facility located mostly in the Borough, with a small portion located within West Donegal Township. Undeveloped land adjacent to Willowood Swim Club.

### Mount Joy Township

- Fairview Elementary School:  
A school district property located along Elizabethtown Road with 7.1 acres of land.
- Bellaire Woods Nature Preserve:  
Owned by Lancaster County Conservancy the property consists of 35.7 acres and is located along Prospect Road.
- Wolgemuth Park:  
The park is owned by Mount Joy Township and has 10.1 acres of land. It is located along Elizabethtown Road.
- Intermunicipal Park:  
(currently being developed)
- Conewago Recreation Trail:  
Maintained by Lancaster County the recreation trail runs along the Conewago Creek.
- Cove Outlook Park:  
The park is owned by Mount Joy Township.

The Greater Elizabethtown Area Recreation and Community Services (GEARS) is a community service in which all four of the municipalities in the Region and the Elizabethtown Area School District participate. The service programs and schedules field use and provides assorted recreational and educational programming including aquatics, youth and teen programs, summer children/youth/teen programs, camps,

# Community Facilities Profile

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continuing education, athletics, fitness, dance and many more programs. This community service has been a very successful cooperation of the municipalities in the planning Region.

## Public Safety

Emergency services provide a valuable service to a community. The services provided to each municipality within the Region are listed below. Current needs are being satisfactorily met and the Region's municipalities have discussions among themselves and with their volunteer service providers to insure future needs are planned for and met.

## Fire Services

- Elizabethtown Borough is served by Friendship Firehouse and Hose Co. No. 1 both located within the Borough. Friendship Firehouse has approximately 74 volunteer members and five emergency vehicles.
- Mount Joy Township is served by 4 different fire companies. The Fire Department of Mount Joy serves the southeast portion of Mount Joy Township and has approximately 30 volunteer members and eight emergency vehicles. Matersonville Fire Company serves the northeast portion of Mount Joy Township. Rheems Fire Department serves the central portion of Mount Joy Township with 85 volunteer members and six emergency vehicles. Friendship Fire Company services the northwestern and central northern portion of the Township.
- West Donegal Township and Conoy Township are served by the Bainbridge Fire Company. West Donegal Township is also served by the Elizabethtown Fire Department and Rheems Fire Company.

# Community Facilities Profile

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## Police Services

- Elizabethtown Borough is served by the Elizabethtown Borough Police Department with 16 full-time officers.
- West Donegal Township and Mount Joy Township are served by the Northwest Regional Police. The department has 14 full-time police officers and 2 part-time officers and in January 2008 a new police Chief was hired.
- Conoy Township is serviced by the Susquehanna Regional Police Department.

## EMS Services

- All four municipalities in the planning region are serviced by Northwest Advanced Life Support with 14 paid paramedics, 24 paid emergency medical technicians (EMT's), 15 volunteer EMT's and 9 emergency vehicles.
- Mount Joy Township's southeast portion is serviced by Susquehanna Valley EMS. The far northeastern portion of the Township is serviced by Lawn Fire & EMS.
- Bainbridge Fire Company also provides ambulance services to Conoy Township and West Donegal Township.

## Education Facilities

### Public School Districts

Two public school districts serve residents in the Region, Elizabethtown Area School District and Donegal School District.

## Community Facilities Profile

Elizabethtown Area School District serves the largest portion of the Region, spanning across all four municipalities. Elizabethtown Area school district has five (5) elementary schools, a middle school and a high school. Table 1 displays the enrollment numbers for Elizabethtown Area School District.

School	Pre-K	K5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Bainbridge Elementary School	--	40	41	46	51	43	48
East High Street Elementary School	--	99	106	97	92	99	100
Rheems Elementary School	--	63	79	80	65	63	65
Mill Road Elementary School	--	47	52	42	39	54	53
Fairview Elementary School	39	21	24	22	21	23	25
School	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Elizabethtown Area Middle School	296	324	352	--	--	--	--
Elizabethtown Area Senior High School	--	--	--	329	359	313	334

Source: Pennsylvania Department of Education

Donegal School District serves the lower southern portion in Mount Joy and very small portions along the southern municipal boundaries of Conoy Township and West Donegal Township. Donegal school district has three (3) elementary schools, a middle school and a high school. Table 2 displays the enrollment numbers for the 2006-2007 school year for Donegal School District.

Donegal School District is nearing completion of plans for extensive renovation and expansion of facilities. Maytown Elementary School is the oldest in the State and the School District's newest elementary school is already near capacity.

School	K4	K5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Donegal Springs Elementary School		118	145	131	102	94	102
Maytown Elementary School		42	52	50	46	49	34
Riverview Elementary School		42	48	46	44	48	50
School	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Donegal Middle School	222	222	218	--	--	--	--
Donegal Senior High School	--	--	--	225	253	227	193

Source: Pennsylvania Department of Education

# Community Facilities Profile

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## Private Schools

The Region has several private schools that residents can access. Private schools in the area have relatively high enrollment numbers which play an important roll in reducing the demand on the public school facilities. The vast majority of private schools in the area are faith based. The following is a list of some of the major private schools that serve the region:

- Kraybill Mennonite School
- Mt. Calvary Christian School
- Saint Peters Parochial School

## Higher Education Facilities

Residents of the Region have access to a number of post-secondary education facilities in and near the Region. Elizabethtown College is located in Elizabethtown Borough and provides many undergraduate and adult continuing education classes. Other higher education facilities that are within an hour drive of the region include the following:

- Millersville University
- York College of Pennsylvania
- Harrisburg Area Community College
- Temple University (Harrisburg Campus)
- York Technical Institute
- Bradley Academy of the Visual Arts
- Franklin and Marshal College
- Pennsylvania College of Art and Design
- Penn State York Campus
- Penn State Harrisburg Campus

## Utilities

The utilities for each municipality in the Region are listed below:

# Community Facilities Profile

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## Public Water Service

- Elizabethtown Area Water Authority supplies water to Elizabethtown Borough and portions of West Donegal Township.
- Mount Joy Township Authority provides water to Mount Joy Township residents.
- Bainbridge Water Authority serves some residents of Conoy Township the remainder of Conoy Township must rely on private and individual wells.

## Public Sewer Service

- West Donegal Township Authority operates sewage collection and conveyance for portions of West Donegal Township.
- Elizabethtown Borough treats the sewage of its residents as well as portions of West Donegal Township and Mount Joy Township.
- Conoy Township has public sewer facilities in Bainbridge and Falmouth. Outside of these areas residents have on-lot systems.

## Solid Waste

- Trash and recycling collected by each municipality's low bid contracted hauler with the exception of Conoy Township residents who choose their own trash hauler and contract directly with the hauler.

## Miscellaneous Community Facilities

### Library

The Elizabethtown Public Library, located on 10 South Market Street, serves the greater Elizabethtown area. The Elizabethtown Public Library offers a wide range of services and materials including books, magazines, books on tapes and cds, e-Books,



## Community Facilities Profile

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playaways (MP3 Players with pre-loaded books), passport services, online book renewal, free internet services, programs and classes. The library also offers meeting room rentals.

# Natural & Cultural Resources Profile

## Introduction

This section will describe and catalog the natural and cultural Resources of the Region. The information gathered in this section will aid in developing land use policies for the future of the Region and the information will also aid in formulating policies to help protect the natural resources of the region.

## Geology

In order to plan for future land use and to understand ground water quality it is important to understand the geology of the Region. There are 17 different geologic formations found within the region. The New Oxford, Diabase, Snitz Creek-Buffalo, Millbach, Epler and Cocalico formations are the most prevalent of the formations within the region. Table 1 displays the geologic formation characteristics within the Region. The region also has several scenic geologic resources. For additional information on these scenic geologic resources please refer to *Outstanding Geologic Features of Pennsylvania Part 1* and *Part 2* (Geyer and Bolles, 1979 and 1987 respectively).

**Table 1: Characteristics of the Geological Formations for the Region**

Formation	Map Symbol	Porosity	Permeability	Ease of Excavation	Foundation Stability
Vintage Formation	Cv	Moderate	Low	Difficult	Good; solution cavities and bedrock pinnacles should be investigated.
Stonehenge Formation	Os	Low to moderate	High	Difficult	Good; should be thoroughly investigated for solution openings.
Snitz Creek-Buffalo Formation	Csb	Moderate to high	Moderate to high	Difficult	Good; a thorough investigation for solution cavities should be done.
New Oxford Conglomerate Formation	Trnc	Low to moderate	Low	Difficult	Good
New Oxford Formation	Trn	Moderate to high	Moderate	Easy to moderate	Good
Millbach Formation	Cm	Moderate to high	High	Difficult	Good; thorough investigation for solution cavities should be performed.
Limestone Fanglomerate Formation	Trfl	Moderate	Moderate to high	Difficult	Good; Sinkholes have been observed and detailed investigation should be undertaken.
Ledger Formation	Cl	Low to High	Low to High	Difficult	Good; solution openings and bedrock pinnacles

# Natural & Cultural Resources Profile

					should be investigated.
Hammer Creek Conglomerate Formation	Trhc	Low	Low	Difficult	Good
Hammer Creek Formation	Trh	Low	Low to moderate	Difficult	Good
Gettysburg Formation	Trg	Moderate	Moderate	Moderate to difficult	Good
Epler Formation	Oe	Low to medium	Low	Difficult	Good; should be investigated for cavernous areas.
Cocalico Formation	Oco	Low	Low	Easy to moderate	Good
Antietam- Harpers Formation	Cah	Low	Low	Moderate to difficult	Good
Annville Formation	Oan	Moderate to high	Low	Difficult	Good; a thorough investigation for possible collapse areas should be made.
Diabase Formation	Trd	Low	Low	Difficult	Good
Hershey-Myerstown Formation	Ohm	Low	Low	Easy to moderate	Good; should be investigated for solution openings.
Source: Alan R Geyer and J. Peter Wilshusen, <u>Engineering Characteristics of the Rocks of Pennsylvania</u> (Harrisburg, PA: Pennsylvania Geological Survey).					

The fractured nature of 'karst' or limestone geological formations, which can easily allow runoff borne pollutants into sub-surface strata, has significant implications for groundwater quality. "Karst" geology is found in the southern portions of the region's municipalities and includes the Annville, Epler, Hershey-Myerstown, Ledger, Limestone Fanglomerate, Millbach, Snitz Creek-Buffalo, Stonehenge, and Vintage Formations listed above.

## Watersheds

A watershed is the entire land area drained by a particular body of water. Any land activity and wastewater discharge within a particular watershed will determine the quality of the water of the water body to which the watershed drains. The seven (7) watersheds within the Region include the following:

- Codorus Creek- This watershed contains a very small portion of Conoy Township in the Southwestern part of the Region.
- Susquehanna River- This watershed contains the majority of Conoy Township in the Western portion of the Region.

## Natural & Cultural Resources Profile

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- Snitz Creek- The Snitz Creek watershed contains a portion of the north central section of Conoy Township into the North central portion of West Donegal Township.
- Conoy Creek- This watershed contains a south central portion of Conoy Township, the majority of West Donegal Township, all of Elizabethtown Borough and a north central portion of Mt. Joy Township.
- Conewago Creek- The Conewago Creek Watershed contains the northern portion of the region from Conoy Township to midway through Mt. Joy Township.
- Donegal Creek- The Donegal Creek watershed contains a southeastern portion of West Donegal Township and a small southwestern portion of Mt. Joy Township.
- Little Chiques Creek- This Watershed contains the Eastern portion of Mt. Joy Township.

Pennsylvania Department of Environmental Protection assigns quality levels to waterbodies and then regulates soil disturbing and runoff according to the quality level and attainment status. Those attributes for waterbodies in the region are shown on the *Non-Attainment Status of Streams* Map following this profile.

### Slopes

Slopes are an important factor in determining the extent and type of development which can take place. Development that occurs in areas with slopes greater than 15 percent should be carefully reviewed, due to the increase in potential for erosion, stability and access in poor weather conditions. Slopes that are greater than 20 percent are generally considered unsuitable for development. The *Topography* map

# Natural & Cultural Resources Profile

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at the end of this profile displays the slope categories for the Region. There is only a modest amount of significantly sloped land in the Region.

## Floodplains

The floodplain areas are generally defined as areas that are prone to frequent periodic flooding and delineated alluvial soil by the Soil Conservation Service, U.S. Department of Agriculture. The 100-year floodplains and 500-year floodplains within the planning region are displayed on the *Hydrology* map at the end of this profile. The Region's municipalities regulated development within floodplains based on federal flood insurance regulations.

## Wetlands

As defined by the Pennsylvania Department of Environmental Protection (DEP), Environmental Protection Agency (EPA), and the US Army Corps of Engineers, wetlands are those areas which are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas which possess three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

The U.S. Army Corps of Engineers describes the importance of wetlands in the following paragraphs:

"Wetlands provide food and habitat for an abundance and diversity of life not rivaled by most types of environments. All wetlands have value, although their value is highly variable. Productivity in wetlands is measured in terms of living things." Wetlands provide food and habitats for an abundance of animal life; are breeding, spawning, feeding, cover and nursery areas for fish; and are important nesting, migrating, and wintering areas for waterfowl.

## Natural & Cultural Resources Profile

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Wetlands also provide several direct benefits to man. They serve as buffer areas which protect the shoreline from erosion by waves and moderate storm surges. Wetlands act as natural storage areas during floods and storms by retaining high waters and gradually releasing them after subsidence, thereby reducing damaging effects. Wetlands, especially seasonally inundated freshwater wetlands, are often groundwater recharge areas. That is, during dry periods, there are points at which rain and surface water infiltrate underlying or nearby aquifers which are often the sources of local drinking water. Wetlands also purify water not only by filtering and removing pollutants, but also by assimilating and recycling them.”

The National Wetlands Inventory (NWI) Maps were compiled by the U.S. Fish and Wildlife Service using color infrared aerial photos for the identification of wetlands using soil moisture content. The quality of the maps varies greatly depending on the quality of the photos, the time the photos were taken, and the type of wetlands being identified. The NWI map is a helpful background source for wetland investigations. However, field research by a trained expert is necessary to determine the prevalence or absence of wetlands. The wetlands of the Region are displayed on the *Hydrology* map at the end of this profile.

### Soils

The composition and qualities of soils are an important factor in determining land use activities. For planning studies determining such land use activities like agricultural productivity, suitability for on-lot septic systems, flooding potential and ability to sustain vegetation are some of the most important uses to which the Region’s municipalities will put the soil information to use.

The *Soil Survey of Lancaster County, Pennsylvania (1985)* shows that Lancaster County soils fall into twelve (12) major soil groups. In the Region seven (7) soil associations can be found. The seven (7) soil associations and a brief description of each are listed below:

## Natural & Cultural Resources Profile

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- Lewisberry- Penn- The parent material of all these soil types found within this association was derived from Gettysburg shale, Elizabeth Furnace conglomerate and other Triassic Formations. The soils are deep to shallow and can range from well drained to poorly drained. This soil association runs along the Northern portion of the Region.
- Montalto-Watchung- The soil types within this association are derived from diabase or ironstone in the Triassic Lowland. The soils are deep and the drainage ranges from good to poor. This soil association can be found at the northeastern tip of the Region in Conoy Township.
- Wheeling-Sciotoville- The original sediments of this soil association were washed from areas of acid and calcareous rocks. The soils are deep and are well drained to poorly drained.
- Landsdale-Steinsburg- The soils develop from yellow and brown sandstone and shale of the New Oxford formation or from the alluvium derived from the Triassic formations. The soils are moderately deep to shallow and can range from well drained to poorly drained.
- Bedington-Berks- These soil types formed from acid Cocalico shale and the alluvium derived from it. These soil types range from shallow to deep and can range from well drained to poorly drained.
- Duffield-Hagerstown-These soil types are deep, well drained and originate from the limestone valley.
- Edgemont-Cardiff- These soil types developed in the Piedmont Uplands from Antietam quartzite, Harpers phyllite, Chickies quartzite and Hellam conglomerates. The soils range from deep to shallow and are very well drained.

Source: ***Lancaster County Soil Survey (1985)***

# Natural & Cultural Resources Profile

**Table 2: Soil Type Characteristics**

Soil Symbol	Soil Type	Soil Classification	Farmland Classification	On-Lot Sewage Disposal Suitability
AbB	Abbottstown Silt Loam, 3-8 % Slopes	III		Very Limited
BeD	Beddington Channery Silt Loam, 0-3 % slopes	IV		Very Limited
BdA	Beddington Silt Loam, 0-3% slopes	I	Prime Farmland	Somewhat Limited
BdB	Beddington Silt Loam, 3-8 % slopes	II	Prime Farmland	Somewhat Limited
BdC	Beddington Silt Loam, 8-15 % slopes	III		Somewhat Limited
Bm	Blairton Silt Loam, 3-10 % slopes	III		Very Limited
Bo	Bowmansville Silt Loam	III		Very Limited
BrB	Breaknock Gravely Silt Loam, 3-8 % slopes	II	Prime Farmland	Somewhat Limited
BrC	Breaknock Gravely Silt Loam, 8-15% slopes	III		Somewhat Limited
BsB	Breaknock Very Stony Silt Loam, 3-8% slopes	VI		Somewhat Limited
BsC	Breaknock very Stony Silt Loam, 8-25% slopes	VI		Very Limited
BuA	Bucks Silt Loam, 0-3% slopes	I	Prime Farmland	Somewhat Limited
BuB	Bucks Silt Loam, 3-8% slopes	II		Somewhat Limited
BuC	Bucks Silt Loam, 8-15% slopes	III		Somewhat Limited
BuD	Bucks Silt Loam, 15-25% slopes	IV		Very Limited
BxC	Bucks Very Stony Silt Loam, 8-25% slopes	VI		Somewhat Limited
CkA	Clarksburg Silt Loam, 0-5% slopes	II	Prime Farmland	Very Limited
DbA	Duffield Silt loam, 0-3% slopes	I	Prime Farmland	Somewhat Limited
DbB	Duffield Silt Loam, 3-8% slopes	II	Prime Farmland	Somewhat Limited
EcA	Elk Silt Loam, 0-3% slopes	I	Prime Farmland	Somewhat Limited
EcB	Elk Silt Loam, 3-8% slopes	II	Prime Farmland	Somewhat Limited
EcC	Elk Silt Loam, 8-15% slopes	III		Somewhat Limited
Ff	Fluvaquents and Udifluvents, Loamy	IV		Very Limited
HaA	Hagerstown Silt Loam, 0-3 % slopes	I	Prime Farmland	Somewhat Limited
HaB	Hagerstown Silt Loam, 3-8% slopes	II	Prime Farmland	Somewhat Limited
HbC	Hagerstown Silty Clay Loam, 8-15% slopes	III		Somewhat Limited
HbD	Hagerstown Silty Clay Loam, 15-30% slopes	IV		Very Limited
Hg	Holly Silt Loam	III		Very Limited
1JpB	Joanna Loam, 0-8% slopes, extremely stony	VII		Somewhat Limited
1JpD	Joanna Loam,8-25% slopes, extremely stony	VII		Very Limited
1JnD	Joanna Loam, 15-25% slopes	IV		Very Limited
LaB	Lansdale Loam, 3-8% slopes	II	Prime Farmland	Very Limited
LaC	Lansdale Loam, 8-15% slopes	III		Very Limited
LaD	Lansdale Loam, 15-25% slopes	IV		Very Limited
LbB	Lehigh Silt Loam, 3-8% slopes	II	Prime Farmland	Very Limited
LbC	Lehigh Silt Loam, 8-15% slopes	III		Very Limited
Ln	Lindside Silt Loam	II	Prime Farmland	Very Limited
MbB	Manor Very Stony Silt Loam, 3-8% slopes	VI		Very Limited
MdB	Mount Lucas Silt Loam, 3-8% slopes	II	Prime Farmland	Very Limited
MeB	Mount Lucas Very Stony Silt Loam, 3-12% slopes	VI		Very Limited
Nc	Newark Silt Loam	II		Very Limited
Ne	Nolin Silt Loam	II	Prime Farmland	Very Limited
Pa	Penlaw Silt Loam	III		Very Limited
PeC	Pequea Silt Loam, 8-15% slopes	III		Very Limited
RaB	Readington Silt Loam, 3-10% slopes	II		Very Limited
Rd	Rowland Silt Loam	II	Prime Farmland	Very Limited
Ud	Udorthents, Loamy	VI		Very Limited
UbB	Ungers Extremely Stony Loam, 3-8% slopes	VII		Somewhat Limited
UbD	Ungers Extremely Stony Loam, 8-25% slopes	VII		Very Limited
UaB	Ungers Loam, 3-8% slopes	II	Prime Farmland	Somewhat Limited
UaE	Ungers Loam, 8-15% slopes	III		Somewhat Limited
UaD	Ungers Loam, 15-25% slopes	IV		Very Limited

Source: **Lancaster County Soil Survey (1985)**

As a matter of definition, a soil series consists of those soils which have similar characteristics in the kind, thickness and arrangement of soil layers. Soils that differ only in surface texture but are alike in other characteristics are defined as soil types. Soil types are further divided into soil phases because of differences in slope, degree of erosion, number and size of stones or some other feature affecting their use. Soil series



## Natural & Cultural Resources Profile

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that have a similar distribution pattern are grouped into soil associations. Table 2 displays the soil types and phases along with additional characteristics of each soil type in the Region.

Another consideration in this study of soils is the land suitability classification system of the U.S. Department of Agriculture. This classification is a grouping of soils which shows their usefulness for various types of farming. There are eight broad classes; however, going from Class I to Class VIII, the choices in use become increasingly limited. The soil classes are defined as follows:

- Class I soils have few limitations that restrict their use.
- Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- Class III soils have severe limitations that reduce the choice of plants, or that require special conservation practices, or both.
- Class IV soils have very severe limitations that reduce the choice of plants, or that require very careful management, or both.
- Class V soils are not likely to erode but have other limitations, impractical to remove, that limit their use.
- Class VI soils have severe limitations that make them generally unsuitable for cultivation.
- Class VII soils have very severe limitations that make them unsuitable for cultivation.
- Class VIII soils and landforms have limitations that nearly preclude their use for commercial crop production.

Source: NRCS

The class rating of each soil within the Region is listed in Table 2.

# Natural & Cultural Resources Profile

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## Prime Agricultural Soils

The U.S. Department of Agriculture's Natural Resource and Conservation Service classifies certain soils as Prime Farmland soils based on the following definition:

"Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops and is also available for these uses. It has the soil quality, growing season and moisture supply needed to produce economically sustained high yield crops when treated and managed according to acceptable farming methods, including water management. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity and few or no rocks. They are permeable to water and air. Prime farmlands are not easily eroded or saturated with water for a long period of time; these soils either do not flood frequently or are protected from flooding."

The Northwest Region has 18 soil types that are identified as being Prime Farmland. These soils can be viewed in Table 2 and on the *Prime Agricultural Soils* map following this profile.

The desirability to use prime agricultural soils for farming should lead the Region's municipalities to limit development in those areas shown on the *Prime Agricultural Soils* map. Similarly, the Region's municipalities are also building their agricultural preservation efforts around lands that are part of agricultural security areas and/or are in Lancaster County's Agricultural Preserve Program. These lands are shown on the *Preserved Farmland* map at the end of this profile.

## Soil Suitability for On-Lot Disposal Systems

Soil properties also help to determine the suitability of certain areas for the use of on-lot sewage systems as opposed to public facilities. The main limiting factors and

## Natural & Cultural Resources Profile

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features of soils used in determining their suitability for a standard on-lot disposal system (OLDS) are the following:

- Restricted permeability
- Steep slopes
- Presence of cobbles, stones or boulders
- Insufficient depth to bedrock
- Flooding
- The presence of high water table
- Underlying cavernous limestone
- Hydric soils

The United States Department of Agriculture, Natural Resource Conservation Service indicates the degree and kind of soil limitations that affect septic tank absorption fields and sewage lagoons. Rating class terms indicate the extent to which soils are limited by all of the soil features that affect these uses. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. Table 2 displays the limitations for OLDS for each soil type within the Region.

### Natural Resources Identified by Lancaster County Plans

The Lancaster County Conservancy in its 2004 Long Range Protection Plan identified areas along Conewago Creek and Conoy Creek as being areas of importance for natural resource protection.

## Natural & Cultural Resources Profile

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As part of the Natural Heritage Inventory 2008 Update known rare species habitats were identified throughout the Region. Site specific analysis should be conducted prior to any development. For additional information regarding unique natural heritage areas please refer to the Natural Heritage Inventory 2008 Update.

Lancaster County's recently adopted *Greenscapes: the Green Infrastructure Element of the Lancaster County Comprehensive Plan* provides a wide variety of natural resource information pertinent to planning in the region including unique geological formations, surface water quality, impaired streams, natural heritage areas, and important bird areas. Four maps illustrate natural features consistent with *Greenscapes'* goals of Preservation, Conservation, Restoration, and Recreation.

More particularly, *Greenscapes* promotes the concept of large landscape conservation planning for areas that have geographic landforms that characterize or define a region. One such designated landscape for the region is the Lower Susquehanna River valley.

The Susquehanna River valley is a multi-state landscape that covers the three states of New York, Pennsylvania and Maryland. The Susquehanna, along with the West Branch, travel through 22 counties in Pennsylvania and portions of 43 counties. It flows 444 miles from Lake Otsego NY, to the northern end of the Chesapeake Bay in Maryland.

In Lancaster and York counties, the Susquehanna River valley is a working landscape with unique physical features that distinguish it from surrounding areas. The corridor is characterized by forest, farmland, and natural areas. The corridor also contains a number of historic towns and villages. It supplies public drinking water for local and far away communities and it supports large industries such as hydroelectric utilities, food processing, quarries, and waste disposal facilities. The corridor hosts a number of important Native American archeological sites that remain undisturbed beneath farmland. It is also heavily used for water-based recreation experiences such as fishing, boating, paddling, and bird watching.

## Natural & Cultural Resources Profile

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Conoy Township is directly adjacent to the Susquehanna River and within the Lower Susquehanna River corridor. The land adjacent to the river corridor in this community is characterized by a relatively thin strip of forest land between PA Route 441 and the edge of the river. Farmland is interspersed throughout the corridor and the village of Bainbridge is near the midpoint of the township along the river corridor. There are a number of public access points within the township that enable boaters and paddlers to access the river for recreational pursuits.

Conoy Township is fortunate that much of the river corridor today remains a blend of natural and agricultural lands that, along with the river, combine to form a highly scenic resource. Conoy, however, is just one municipality along the 44 mile stretch of river that contains 21 municipal governments in both Lancaster and York counties. In addition, there are numerous public, private, and non-profit property owners along the corridor that control large land holdings, each with varying--and sometimes conflicting--interest. Conoy and the other municipalities along the river are fortunate that the corridor has not been highly developed; as is the case with many similar river corridors in Pennsylvania. However, with the growing interest in eco-tourism, the strong growth pressure in Lancaster and York counties, and the high demand for rural residential lots, the character of the corridor is likely to change in the near future. Without meaningful land use and planning coordination amongst all these entities, the preservation of river corridor and its natural, cultural, and historic resources are nearly impossible.

*Greenscapes* promotes a holistic approach to large landscapes like the Lower Susquehanna River corridor. It suggests that a large landscape conservation plan be prepared for the Susquehanna River valley with strong involvement of the public, private, and non-profit entities with interest in the future of the corridor. Following the creation of a plan, these entities could form an umbrella organization to discuss and direct the current and future use of the corridor. Coordinating land use and zoning regulations; preserving key natural areas and vistas; preserving important farmlands; interpreting Native American and industrial heritage sites; and coordinating recreation opportunities are a few of the activities that this organization could take on.

# Natural & Cultural Resources Profile

In the near future, Conoy Township will be asked to participate in this planning process for the Susquehanna River corridor. The Township and its partner municipalities should take full advantage of the opportunity to work with other communities and entities to preserve the integrity of the river corridor. It is a major, defining characteristic of the community and region and it warrants the full participation of the region’s municipalities in planning for its future.

## Cultural and Historic Resources

### National Register of Historic Properties

The preservation of historic resources is important to municipal officials and residents alike. By preserving places with historical significance the Region is providing a physical link of the past with the present. Currently the Region has 6 properties listed on the National Register of Historic places. Table 3 lists the properties that are listed on the National Register of Historic Places located in the Region.

Property Name	Property Address	Municipality	Status	Date Listed
Locust Grove	t-839, ½ mile South of Bainbridge	Conoy Township	Listed	-
Kreider Shoe Manufacturing Company	155 South polar Street	Elizabethtown Borough	Listed	06-27-1980
Brown’s, George, Sons Cotton and Woolen Mill	324-360 East Main Street	Mount Joy Township	Listed	07-21-1995
Donegal Mills Plantation	Southwest in Mount Joy on Trout Run Rd.	Mount Joy Township	Listed	01-20-1978
Nissly Swiss Chocolate Company	951 Wood Street	Mount Joy Township	Listed	06-28-1996
Risslers Mill Covered Bridge	L.R. 36011, Hunsecker	Mount Joy Township	Listed	-

Source: Pennsylvania Historical and Museum Commission

# Water Resources Profile

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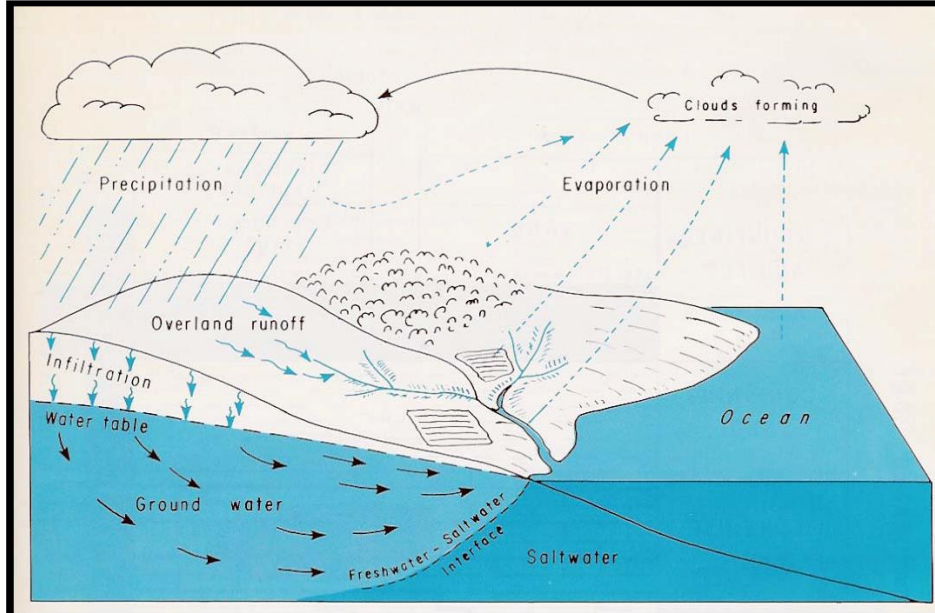
## Introduction

An understanding of a community's water resources is critical to achieve balance among human, economic, and environmental needs. The most significant challenge for preserving future water resource goals is growth patterns and activities on land. Protecting water supplies by strategically directing growth and development to suitable areas, promoting safe use and disposal of pollutants, such as fertilizers, industrial wastes, sewerage effluent from septic systems, and minimizing excessive erosion, is crucial in municipal planning. The Region's municipalities will utilize the information in this profile in formulating objectives and strategies and decision making related to future land use and community facilities.

The occurrence and interrelationship of water from and to the atmosphere, on the land surface, and in the ground is known as the hydrologic cycle (Figure 1). Understanding the pathways and impact from human activities is fundamental to proper management of water resources. Surface waters consist of perennial and intermittent streams, lakes, reservoirs, ponds, wetlands, springs, and natural seeps. Groundwater is water contained in the soils and rock formations of Conoy Township, Elizabethtown Borough, Mt. Joy Township and West Donegal Township (the Region). Most groundwater is derived from precipitation that has infiltrated and percolated through the soil recharging the aquifer. The rates of recharge vary by location due to the diverse properties of soils and the underlying bedrock. After reaching the water table, groundwater moves towards points of discharge, such as surface waters, springs, and wells.

# Water Resources Profile

**Figure 1: Diagram of the Hydrologic Cycle**



(Source: Heath, 1987).

## Physiography & Hydrogeologic Setting

The Region is located in the Piedmont Province that consists of the Piedmont Lowland Section covering approximately a third of the region along the southwest flank. The remaining two-thirds of region consist of the Gettysburg-Newark Lowland Section. The Piedmont Lowland Section generally contains carbonate formations, while the Gettysburg-Newark Lowland Section contains siliciclastic and diabase formations.

The hydrology of Northwest Regional Lancaster County is strongly influenced by geology. Groundwater recharge rates, well yields, and drainage patterns and flow of streams are largely dependent on the spatial distribution of rock types and structure. Diabase, a very poor aquifer, comprises the upland hills and underlies the northwest area of the region. Two principle types of aquifers are the sandstone-shale-quartz conglomerate (siliciclastic aquifers) and limestone-dolomite (carbonate aquifers). One third of the region is underlain by carbonate aquifers located in the southwest of the region. The remaining central portion of the region from the Susquehanna River



# Water Resources Profile

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north of Bainbridge to Elizabethtown Borough and extending northeast are underlain by the siliciclastic aquifers.

## Surface Water, Base Flow, & Groundwater

In order to properly manage and utilize water, the surface water and groundwater resources of the Region must be described and quantified. While surface water and groundwater are often characterized separately, it is important to acknowledge that they represent one resource.

Water flowing in streams is a combination of surface or overland runoff and groundwater discharge (base flow). Overland runoff from precipitation events contributes inflow to streams resulting in higher stream flows of short duration. During periods between precipitation events, the discharge of groundwater from springs and seeps provides most of the water in streams. Stream flow in the watersheds crossing the Region is dominantly base flow within hours to a few days after precipitation events.

The base flow in streams is a good indicator of groundwater recharge in the watershed, and groundwater available for development. Groundwater recharge accounts for nearly a quarter of annual precipitation. On the average, base flow provides 65 percent to 75 percent of the total stream flow in watersheds of the region (Taylor and Werkheiser, 1984). Differences in groundwater contribution reflect the effect of geology and to a lesser extent, topography and land use. The combination of land use activity and aquifer properties are important factors in understanding the quantity and quality of water resources of the area.

### **SURFACE WATER**

#### Watersheds and Stream Classification

The streams of the Region region are located in the Susquehanna River Basin and generally flow southwest to south toward the Susquehanna River. The four named

# Water Resources Profile

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watersheds in the area: Conewago Creek, Conoy Creek, Little Chiques Creek, and Donegal.

Water uses protected in these watersheds are set forth in Chapter 93, Title 25 of the Pennsylvania Code. The Pennsylvania Department of Environmental Resources (PADEP) protects four stream water uses: aquatic life, fish consumption, potable water supply, and recreation. Chapter 93 stream classifications for region's streams include Warm Water Fisheries (WWF) waters, Cold Water Fisheries (CWF) waters and Trout Stock Fisheries (TSF).

The four major watersheds located in the region along with their stream classification are listed below. Several remaining un-named tributaries and Snitz Creek located in Conoy Township flow directly to the Susquehanna River and are designated WWF.

- Conewago Creek and its tributaries are designated TSF
- Conoy Creek its tributaries are designated TSF
- Little Chiques Creek and its tributaries are designated TSF
- Donegal Creek main stem is designated TSF its tributaries are designated CWF

The four watersheds and tributaries flow to the Susquehanna River. Conewago Creek watershed is located along the northern tier of the region and flows southwest to the Susquehanna River. Conoy Creek drains the central area, flowing southwest through Elizabethtown Borough. Little Chiques Creek and Donegal Creek drain the eastern and southcentral parts, respectively, of the region and flow southward to the Susquehanna River

## Water Quality and Attainment of Use

Use attainment is a way of describing whether or not a stream is meeting Pennsylvania's water quality standards. PADEP provides use attainment assessment updates through the agency's Stream Integrated List. The Streams Integrated List represents stream assessments in an integrated format for the Clean Water Act

## Water Resources Profile

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Section 305(b) reporting and Section 303(d) listing. The list contains streams that are attaining or not attaining its designated uses. PADEP protects four stream water uses: aquatic life, fish consumption, potable water supply, and recreation. If a stream segment is not attaining any one of its four uses, the stream segment is considered impaired. The designated use attainment is defined as:

- Aquatic Life use attainment - The integrity reflected in any component of the biological community. (i.e. fish or fish food organisms);
- Fish Consumption use attainment - The risk posed to people by the consumption of aquatic organisms (ex. fish, shellfish, frogs, turtles, crayfish, etc.);
- Recreational use attainment - The risk associated with human recreation activities in or on a water body. (i.e. exposure to bacteria and other disease causing organisms through water contact recreation like swimming or water skiing); and
- Potable Water Supply use attainment - The risk posed to people by the ingestion of drinking water

Several stream reaches in the region did not attain the stream's designated use. The Conewago Creek along the Lancaster-Dauphin County Line and the Lancaster-Lebanon County line did not attain its designated use. PADEP identified that the Conewago Creek impairment was due to agricultural sources contributing to stream siltation and excessive nutrients.

Conoy Creek and its tributaries from its source to Stonemill Road in West Donegal Township did not attain their designated use. PADEP indicates that the source of impairment was agricultural activities, urban runoff, and storm sewer discharge causing stream siltation and stream habitat alterations.

Little Chiques Creek from the bridge at Milton Grove Road to the mouth did not attain its designated use due to agricultural nutrients and siltation.

# Water Resources Profile

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Donegal Creek downstream of Route 230 to its mouth did not attain its designated use due to agricultural activities contributing to organic enrichment and low dissolved oxygen. An unnamed tributary to Donegal Creek, located a mile to the west, did not attain its designated use due to agricultural activities contributing to organic enrichment, nutrients, siltation and low dissolved oxygen.

The Susquehanna River plays its own important role for the quality of water resources beyond the region. According to *Greenscapes: The Green Infrastructure Element of the Lancaster County Comprehensive Plan*, the Susquehanna River provides over fifty percent (50%) of the fresh water to the Chesapeake Bay. Nutrient and sediment management within the region is critical to maintaining water quality in the Susquehanna, and consequently, the Bay. Efforts at removing accumulated sediment and at streambank stabilization within the region's streams that feed the Susquehanna will contribute positively in this regard. Riparian buffer projects also help to manage nutrient and sediment inputs from both rural and urban activity.

The *Non-Attainment Status of Streams* map at the end of the Natural and Cultural Resources Profile graphically shows the streams with non-attainment status of all streams in the Region.

## **GROUNDWATER**

The hydrogeologic information presented in this section can assist decision makers in their efforts to efficiently develop water and land resources. Individuals drilling wells for home or farm use may also benefit from this information to select optimum drilling depths and anticipated yields. However, professionals with geologic experience and skill in interpreting field conditions can best provide selection of actual drilling sites.

### Estimate of Groundwater Availability

The maximum limit of aquifer development or safe yield is equal to the amount of natural replenishment or recharge that the aquifer receives annually. Recharge quantities are expressed as a groundwater discharge (yield) per unit of land surface.

# Water Resources Profile

Groundwater yields from base flow measurements provide an estimate of the quantities available. Taylor and Werkheiser (1984) studied the groundwater resources of the Lower Susquehanna River Basin and reported on groundwater yields estimated from base flow in several watersheds. Gehart and Lazorchick (1988) conducted an evaluation of groundwater resource in the lower Susquehanna River Basin and reported on model estimates of recharge for several hydrogeologic units. Table 1 presents the referenced groundwater yield estimates expressed as an average yield in million gallons per day per square mile (mgd/sqmi). Depending on the distribution of each hydrogeologic unit in a defined watershed area, one can approximate the amount of groundwater available for use.

<b>Hydrogeologic Unit</b>	<b>Groundwater Yield (Mgal/d/sqmi)</b>
Diabase	0.11
Gettysburg Formation	0.50
Hammer Creek Formation	0.50
Hammer Creek Conglomerate	0.53
New Oxford Formation	0.52
Cocalico Formation	0.56
Hershey-Myerstown Formation	1.27
Annville Formation	1.27
Epler Formation	1.27
Stonehenge Formation	2.93
Millbach Formation	0.97
Snitz Creek-Buffalo Springs Formation	0.76
Ledger Formation	1.14
Vintage Formation	1.09
Antietam-Harpers Formation	0.50
<b>Average for Diabase</b>	<b>0.11</b>
<b>Average for Triassic Sedimentary</b>	<b>0.51</b>
<b>Average for Metamorphic</b>	<b>0.50</b>
<b>Average for Carbonates</b>	<b>1.21</b>

The use of the safe yield as a limit for groundwater development will result in a substantial reduction of stream and spring flow during extended periods (several months or longer) with below average precipitation.

When water supply demands approach the safe yield, normal base flows supporting in-stream flow needs (e.g., aquatic habitat and dilution of treated wastewater discharges) are reduced. Water resource managers refer to a sustainable yield of a

# Water Resources Profile

groundwater basin that is equal to the safe yield minus an amount of water to maintain a base flow to support in-stream needs.

One measure to balance in stream flow needs and groundwater available for development is the use of the 1-in-10 year recharge as the sustainable limit. The 1-in-10 year recharge is approximately 60 percent of an average or normal year’s base-flow. Therefore, the sustainable limits presented in Table 2 provide a reasonable estimate for water supply planning in the region.

Rock Type	Safe Yield		Sustainable Yield	
	(mgd/sqmi)	(gpm/sqmi)	(mgd/sqmi)	(gpm/sqmi)
<b>Diabase</b>	0.11	76	0.07	46
<b>Triassic Sedimentary</b>	0.51	354	0.31	212
<b>Metamorphic</b>	0.50	347	0.30	208
<b>Carbonates</b>	1.21	840	0.73	504

## Water-Bearing Characteristics of Aquifers & Well Yield

Groundwater flows through interconnected openings of fractures, bedding-plane partings, intergranular pores, and karst voids that are the water-bearing zones of the aquifer. Geologic factors that control the type and distribution of water-bearing zones are lithology, topography, and geologic structure. These factors influence the number, size, distribution, and the degree of these water-bearing zones are directed related to well yield.

Table 3 presents the water-bearing characteristics of each geologic unit located in the region (Source: Geyer and Wilshusen, 1982; Poth, 1977; Meisler and Becher, 1971; Lohman, 1974; Low, et. al., 2000; and Taylor and Werkheiser, 1984) based on the specific capacity, median yield, maximum reported yield of operational wells, and median well depth. Wells that are inadequate to supply minimum domestic needs have reported yields of less than 5 gpm and require standby storage (i.e., deeper well volume). Median yield is typically the amount of water that can be obtained

# Water Resources Profile

continuously from a well in a 24 hour period and is a function of the specific capacity data (the yield of a well per foot of drawdown) of each geologic unit. The higher the specific capacity in a well, the higher the yield that can be sustained from the well.

**Table 3: Water-Bearing Characteristics and Water Quality of Geologic Units**

Geologic Unit (Symbol)	Geologic Description	Water Quality	Water-bearing characteristics
<b>Diabase (Trd)</b>	Dark-colored fine- to coarse grained igneous rock intruded into sedimentary rock.	Conductance = 320 uhos Hardness = 140 mg/l pH = 6.9 Dissolved solids = 231 mg/l  Water is moderately hard. Elevated concentrations of iron and manganese and low pH are common water-quality problems	Poorest aquifer of the region. Median Yield = 10 gpm Maximum Yield = 15 gpm Specific Capacity = 0.12 gpm/ft Median Well Depth = 122 ft
<b>Gettysburg Formation (Trg)</b>	Red shale and soft red sandstone containing some interbedded massive red sandstone and conglomerate.	Conductance = 360 uhos Hardness = 150 mg/l pH = 7.3 Dissolved solids = 371 mg/l Water is generally soft.	Median Yield = 16 gpm Maximum Yield = 94 gpm Specific Capacity = 0.34 gpm/ft Median Well Depth = 175 ft
<b>Hammer Creek Formation and Conglomerate (Trh) and (Trhc)</b>	Interbedded red shales, red, brown, gray sandstones, and fine to coarse quartz conglomerates.	Conductance = 170 uhos Hardness = 68 mg/l pH = 6.7 Dissolved solids = 120 mg/l Water is generally soft.	Median Yield = 21 gpm Maximum Yield = 800 gpm Specific Capacity = 0.56 gpm/ft Median Well Depth = 133 ft
<b>New Oxford Formation and Conglomerate (Trn) and (Trnc)</b>	Light-gray to grayish-yellow sandstone with interbedded thin red shale and conglomerate.	Conductance = 325 uhos Hardness = 120 mg/l pH = 6.8 Dissolved solids = 220 mg/l Water is generally soft to moderately hard. Iron and manganese reported is some wells.	Median Yield = 12 gpm Maximum Yield = 450 gpm Specific Capacity = 0.83 gpm/ft Median Well Depth = 190 ft
<b>Limestone Flanglomerate (TRfl)</b>	Light medium gray to yellow gray limestone and dolomite pebbles and fragments with shale interbeds and very fine grained red quartz matrix.	Unknown	Maximum reported yield = 800 gpm. Median sustained yield = 200 gpm.
<b>Cocalico Formation (Oco)</b>	Bluish-black to dark gray fissile shale; purple and green shale with thin quartzite bed near base.	Conductance = 280 uhos Hardness = 120 mg/l pH = 7.0 Dissolved solids = 200 mg/l Water is moderately hard.	Median Yield = 20 gpm Maximum Yield = 100 gpm Specific Capacity = 1.0 gpm/ft Median Well Depth = 250 ft
<b>Hershey-Myerstown Formation (Ohm)</b>	Dark gray, thin bedded, argillaceous limestone; shaly near top of bed. Medium gray, thin bed limestone grading to black at base.	Conductance = 660 uhos Hardness = 260 mg/l Water very hard and high in dissolved solids.	Specific Capacity = 0.4 gpm/ft. Very little data exists; believed to be the poorest yielding carbonate aquifer in south-central Pennsylvania.
<b>Annville Formation (Oan)</b>	Light gray, massive bed limestone.	Conductance = 560 uhos Hardness = 220 mg/l Water is hard.	Good aquifer. Wells have encountered solution openings for very large yields. Specific Capacity reported as high as = 100 gpm/ft. Very little data exists.
<b>Epler Formation (Oe)</b>	Medium-light gray, thick-bedded limestone and	Conductance = 600 uhos	Median Yield = 12 gpm Specific Capacity = 0.5 gpm/ft

# Water Resources Profile

	dolomite.	Hardness = 260 mg/l pH = 7.4 Dissolved solids = 416 mg/l	Median Well Depth = 190 ft
<b>Stonehenge Formation (Osh)</b>	Medium-gray, crystalline, cherty limestone and gray shaly calcarenite; algal limestone in upper half of formation.	Conductance = 565 uhos Hardness = 239 mg/l pH = 7.5 Dissolved solids = 390 mg/l	Very good aquifer. Median Yield = 138 gpm Maximum Yield = 600 gpm Specific Capacity = 4.5 gpm/ft Median Well Depth = 138 ft
<b>Millbach Formation (Cm)</b>	Pinkish-gray and medium gray, laminated limestone with thin sandstones.	Conductance = 640 uhos Hardness = 260 mg/l pH = 6.9 Dissolved solids = 420 mg/l Water very hard and high in dissolved solids	Median Yield = 40 gpm Maximum Yield = 300 gpm Specific Capacity = 0.52 gpm/ft Median Well Depth = 185 ft
<b>Snitz Creek-Buffalo Springs Formation (Csb)</b>	Light to medium gray, thick-bedded, oolitic dolomite with medium gray interbeds. Light gray to pinkish-gray crystalline limestone with alternating light gray crystalline dolomite.	Conductance = 655 uhos Hardness = 305 mg/l pH = 7.6 Dissolved solids = 416 mg/l Water very hard and high in dissolved solids	Median Yield = 10 gpm Maximum Yield = 350 gpm Specific Capacity = 0.2 gpm/ft Median Well Depth = 170 ft
<b>Ledger Formation (Cl)</b>	Light-gray, medium- to coarse-crystalline, massive dolomite.	Conductance = 650 uhos Hardness = 274 mg/l pH = 7.4 Dissolved solids = 356 mg/l Water is very hard.	Median Yield = 30 gpm Maximum Yield = 550 gpm Specific Capacity = 2.5 gpm/ft Median Well Depth = 170 ft
<b>Vintage Formation (Cv)</b>	Gray fine-crystalline massive dolomite; contains siliceous laminae or thin shale interbeds.	Conductance = 410 uhos Hardness = 188 mg/l pH = 7.3 Dissolved solids = 222 mg/l Water is hard to very hard.	Median Yield = 6 gpm Maximum Yield = 70 gpm Specific Capacity = 0.44 gpm/ft Median Well Depth = 113 ft
<b>Antietam-Harpers Formation (Cah)</b>	Gray quartzite overlying gray phyllite and schist	Conductance = 200 uhos Hardness = 68 mg/l pH = 5.9 Dissolved solids = 144 mg/l Water is soft.	Median Yield = 5 gpm Maximum Yield = 40 gpm Specific Capacity = 0.34 gpm/ft Median Well Depth = 128 ft

Table 4 provides the percentage of water-bearing zones encountered for each formation by selected depth ranges, and the median depth of wells drilled in the respective formation. The wells drilled in the diabase indicate that well yields are obtained at shallower depths than wells drilled in the carbonates. A comparison of the Ordovician carbonates and Cambrian carbonates indicated that deeper wells and water-bearing zones occur in the Cambrian carbonates. While drilling costs may be higher for wells in the Cambrian carbonates, these wells can be cased deeper and may be less susceptible to contamination.



## Water Resources Profile

Table 4 provides valuable information on well depth decision during drilling. For example, nearly 84 percent of the water-bearing zones in the Vintage Formation occur within the first 100 feet. If water quantities attained are not adequate, the chances of deeper water-bearing zones are limited.. Conversely, if quantities of water were marginally adequate in a 100 foot well in the Epler Formation, drilling deeper may be practical to encounter more water-bearing zones and provide additional well volume storage. Location of the drilled well is important. If a dry hole penetrates fresh rock to 200 feet, then water at greater depths is unlikely.

GEOLOGIC UNIT	<b>DEPTH RANGE OF YIELD ZONES</b>						Median Well Depth feet
	Percent of Water-Bearing Zones Encountered						
	0-50	51-100	101-150	151-200	201-250	251-300	
<b>Diabase</b>	40	30	14	8	3	5	122
<b>Gettysburg Formation</b>	12	42	21	13	8	4	175
<b>Hammer Creek Formation</b>	22	43	20	8	4	3	133
<b>New Oxford Formation</b>	27	49	14	5	2	3	109
<b>Cocalico Formation</b>	13	37	24	17	5	4	250
<b>Epler Formation</b>	14	28	17	20	15	6	190
<b>Stonehenge Formation</b>	20	10	20	40	10	-	138
<b>Millbach Formation</b>	9	47	12	20	5	7	185
<b>Snitz Cr.-Buffalo Spr. Formation</b>	5	23	44	23	5	-	170
<b>Ledger Formation</b>	15	37	19	21	5	3	170
<b>Vintage Formation</b>	24	60	7	7	2	-	113
<b>Antietam-Harpers Formation</b>	14	36	23	27	-	-	128

(Modified after Low, et. al., 2000)

### Topography & Potential Well Yield

Many groundwater resource investigations have shown that for similar rock types, in general, wells drilled in lower topographic positions (valleys) have higher yields than wells drilled in higher positions (hilltops). Hilltops form on the more resistant rocks where there are fewer openings in the underlying bedrock and less opportunity for weathering. Conversely, valleys are the collecting areas where upslope waters drain. These areas tend to have a greater distribution of solution features and a capability for handling greater amounts of water. Yields from valley wells in the shales and carbonates are 3 to 20 times greater, respectively, than those on hilltops. Topographic position has a more significant effect on well yield in carbonate rocks

# Water Resources Profile

than in shale. Table 5 presents the median specific capacity for the given topographic position.

**Table 5: Median Specific Capacity in gpm/ft for the Given Topographic Position.**

Rock Type	Hilltop	Hillside	Swale	Flat	Valley
Carbonate	0.25	0.5	0.9	3.1	5.5
Shale	0.67	0.9	0.62	1.7	1.9

Source: Becher and Taylor, 1982.

Actual yields are demonstrated by the water supply wells for the water authorities operating within the region. The two wells serving the Mount Joy Township Authority service area are both rated to provide approximately 280,000 gallons per day. The safe yields of the (7) seven wells in the Elizabethtown Area Water Authority (EAWA) system range from 15,000 gallons per day to 138,000 gallons per day. The Bainbridge Water Authority operates two (2) wells to supply water to Bainbridge Borough. According to the Authority’s 2007 Wellhead Protection Plan Update, the wells have a sustainable yield of 75,000 gallons per day.

## Groundwater Quality

Natural groundwater quality is a function of the composition of the soil and rock through which water flows. Major differences in groundwater quality occur between the noncalcareous (shale and sandstones) and calcareous (limestone and dolomite) rocks. Groundwater in the region is of good quality for most uses. Water in the carbonate formations is hard (121 mg/l to 180 mg/l) to very hard (greater than 180 mg/l). In the diabase, high iron and manganese greater than the recommended limits of 0.3 mg/l and 0.2 mg/l, respectively, are common in well water.

The majority of the dissolved constituents present in the carbonate aquifer are calcium and magnesium, and high iron and manganese in the shales and diabase. The occurrence of these and other constituents are factors in the specific conductance and hardness found in groundwater. A summary of median hardness

## Water Resources Profile

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and specific conductance values found in groundwater for each geologic unit are presented in Table 3. Specific conductance is a measure of the capacity of water to conduct an electric current that proxies for the amount of dissolved constituents in groundwater. An approximation of the dissolved solids content in water can be obtained by multiplying the specific conductance by 0.65. The recommended maximum limit of dissolved solids in drinking water is 500 mg/l. While water hardness is not a safety issue, water hardness is a common water quality problem. Hardness in water occurs when excess minerals in the water create certain nuisance problems for household plumbing and water-using appliances.

While the most commonly reported groundwater quality problems are due to naturally occurring constituents, groundwater is susceptible to contamination from land surface activities. Many of the high concentrations of nitrate and dissolved solids are samples of water from the carbonates (Poth, 1977). Common problems leading to contamination were shallow wells, wells with little casing, and wells sited near intensive agricultural operations and down-gradient of septic systems. Over time, the region has experienced increased concentration of agricultural and urban runoff and resulting impacts to groundwater quality. Further, on-lot sewage disposal system malfunctions have led to groundwater quality impacts. Private well water samples taken as part of Act 537 Plans for wastewater treatment systems within the region show coliform and nitrate levels typical of a rural setting. In some cases, those levels limit property owners' options in the use and repair of on-lot sewage disposal systems. Land use regulation and Act 537 Planning are aimed at addressing the results of these land surface activities.

Both of the Mount Joy Township Authority wells are located on Authority owned property. The Authority has established a one hundred (100) feet radius wellhead protection zone around each zone. There are no ordinance level regulations applicable within that zone, but the Authority only uses organic products on the grounds within the zone and closely monitors activities inside and nearby the zone for any unacceptable activities such as discarded equipment or material. No water quality concerns related to the wells have been experienced, according to the Authority.

# Water Resources Profile

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No wellhead protection program has been retrofitted to the Elizabethtown Area Water Authority (EAWA) wells, but their location on Authority owned property, the Elizabethtown College campus, and two residential neighborhoods give the Authority a level of comfort in controlling land surface activity impacts to the wellheads' areas. According to the Authority, turbidity in some of the wells has been experienced, but it has been easily cleared out and is not felt to be associated with nearby soil properties. No other water quality concerns related to the wells have been experienced.

The Bainbridge Water Authority's 2007 Wellhead Protection Plan Update did not identify any water quality concerns related to the Authority's two wells.

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# **MUNICIPAL OBJECTIVES AND STRATEGIES**

# Municipal Objectives & Strategies

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## Introduction

Each municipality identified by category the following objectives and strategies to implement overall regional goals. These objectives and strategies reflect each municipality's intent for addressing the strategic issues identified throughout the planning process and listed by topic in Chapters 3 through 9. The objectives and strategies here form the basis for the implementation actions priorities described in each of the topical chapters 3 through 9 as well.

## Future Land Use

### Conoy Township

- Encourage limited new housing to be built around the existing villages of Bainbridge and Falmouth consistent with the location of public utilities.
- Rezone Rural lands to Agriculture that are currently location in the northern end of the Township.
- Encourage new commercial - industrial development to primarily occur within and adjacent to the limits of the existing Industrial Zone.

### Elizabethtown Borough

- Guide growth and development to protect and spotlight the natural environment to preserve the quality of life in the community.
- Reinforce the central business district with appropriate surrounding residential density.
- Evaluate and adjust as appropriate the building height allowances within the zoning ordinance to help promote central business district reinvestment.

# Municipal Objectives & Strategies

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- Review and update the Borough’s Subdivision and Land Development Ordinance, Zoning Ordinance, and other ordinances to support investment and development of the existing housing stock and the management of infill and growth within the Borough in accordance with the County’s Smart Growth Initiatives.

## Mount Joy Township

- Encourage industrial development within the I-2 Interchange Development District.
- Encourage Commercial/Mixed Use development within the I-1 Interchange Development District.
- Periodically review Urban Growth Boundaries for consistency with future population projections and current development patterns.
- Create ordinance regulations such as cluster development or conservation-by-design subdivisions that encourage flexible site design that promotes open space and sensitive natural feature protection.
- Create regulations to encourage mixed use development to increase the community tax base and allow for an increase in a varied housing stock.

## West Donegal Township

- Consider a “residential holding” land classification/zoning approach as a tool to match anticipated growth areas and quantities with public water and sewer capacities.
- Increase collaboration with the surrounding municipalities in order to plan for certain types of commercial/industrial uses so they are strategically and logically located within the region; work closely with landowners/developers in



## Municipal Objectives & Strategies

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planning for the development of areas of the Township that are currently zoned Commercial and Industrial.

- Coordinate new housing development approvals and land zoned for additional residential development with foreseeable public water and sewer capacities.
- Firmly establish and adopt a Township Urban Growth Area coinciding with existing public utility locations and limit new residential development to those areas.
- Consider revisions to the Township zoning map that do not allow for more housing to be built than is projected to be needed by the target population determined for the Township in this Plan.

### Transportation

#### Conoy Township

- Maintain the existing public access to the Susquehanna River provided by Collins, Prescott, King, and Race Streets.
- Extend Front Street south from Market Street through the Centerville Mobile Home Park to the Riverview development.
- Widen and improve Turnpike and Bainbridge Roads, the Township's major connectors to the Elizabethtown area.

#### Elizabethtown Borough

- Address traffic improvement items contained in the 2006 Regional Transportation Plan.
- Cooperate with neighboring townships to develop connecting bicycle and pedestrian routes throughout the region.

## Municipal Objectives & Strategies

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- Promote the maintenance and expansion of RRTA bus service throughout the region and explore local options for a public transportation service to serve high use areas.
- Work with businesses to decrease the amount of truck traffic in the downtown.
- Complete proposed improvements to the Elizabethtown train station, grounds, and satellite parking.

### Mount Joy Township

- Secure the permits and funding, and develop the partnerships necessary to construct Mount Joy Township Official Map roadway improvements.
- Improve traffic flow on existing roadways.
- Improve accessibility along the Route 230 corridor and encourage a variety of transportation modes (rail, bus, vehicle, bicycle) to surrounding regions.

### West Donegal Township

- Continue efforts to create an alternate route around Elizabethtown Borough west of Route 230/Market Street.
- Construct the roadway improvements contained in the 2006 Regional Transportation Study, partnering on projects outside of the Township when appropriate.
- Coordinate transportation projects construction with the installation of utilities.
- Anticipate road improvements/new roads needed to safely accommodate traffic resulting from development of the Conewago Industrial Park, Stoney

# Municipal Objectives & Strategies

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Brook subdivision, Donegal Woods subdivision, and the commercial/industrial tract east of Route 743 between West Ridge Road and Foreman Road.

- Identify traditional and creative ways to fund necessary traffic improvements such as grants, assessments, impact fees, developer contributions, and other similar methods.

## Economic Development

### Conoy Township

- Encourage new commercial – industrial development to primarily occur within and adjacent to the limits of the existing Industrial Zone.

### Elizabethtown Borough

- Complete planned improvements to the Elizabethtown train station, grounds, and satellite parking.
- Complete renovations to Center Square, downtown streetscape improvements on High Street and Market Street, and the pedestrian and non-motorized connections from the downtown to the greater region.
- Explore economic development opportunities in conjunction with the Master Plan Downtown Elizabethtown for the northern and southern corridors of Market Street.
- Encourage development in accordance with the Master Plan for Downtown Elizabethtown in cooperation with local businesses, institutions and municipalities
- Discuss with Elizabethtown Area School District and Elizabethtown College the connections between providing quality public and private post-secondary

## Municipal Objectives & Strategies

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education and the region's ability to attract quality business as well as sustain thriving neighborhoods and prosperous families.

- Locally provide for the needs of the community including groceries, medical care, entertainment, home improvement, banking, and professional services.
- Partner with local businesses and institutions to promote the retention of local jobs and expansion of the tax base.
- Identify opportunities for more cooperative interaction and development among entities such as the IDA and Elizabethtown Area Chamber of Commerce.

### Mount Joy Township

- Encourage commercial/mixed use development within the I-1 (Route 743) Interchange District.
- Encourage industrial development within the I-2 (Cloverleaf Road) Interchange Development District.
- Update and implement the Transfer of Development Rights (TDR) program – investigate opportunities to work collectively among the municipalities in the region for the formation of sending and receiving areas.
- Recognize farming as the primary industry in the region – implement programs that assist/encourage small farm and business partnerships.
- Form regulations that are compatible with DEP policy but will allow for better local control and enforcement of violations.
- Revise ordinances both to include incentives to developers willing to improve and clean up neglected commercial and industrial sites in the region and to

## Municipal Objectives & Strategies

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contain enforceable performance standards should violations occur on the site.

- Review existing ordinances and incorporate “Smart Growth” principles in the performance standards for area businesses and industries.

### West Donegal Township

- Identify, encourage, or recruit suitable businesses that could locate in the Conewago Industrial Park with assistance from the Elizabethtown Economic Development Corporation and the Elizabethtown Chamber of Commerce.
- Provide investors with information needed to make site selection decisions which assist in preserving the Township’s agricultural heritage.
- Work closely with landowners/developers in strategically planning for areas of the Township that are currently zoned Commercial and Industrial.
- Coordinate activities with the Elizabethtown Area Water Authority and West Donegal Township Authority in bringing utilities to areas that are targeted for commercial and industrial activity.
- Coordinate marketing and advertising efforts with the region to promote West Donegal Township as a preferred location for business.
- Promote West Donegal Township as a preferred destination for residential, commercial, and industrial users.
- Foster an environment suitable for growth of existing business to ensure their long-term viability.

# Municipal Objectives & Strategies

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- Increase collaboration with the surrounding municipalities in order to plan for certain types of commercial/industrial uses so they are strategically and logically located within the region.

## Housing

### Conoy Township

- Encourage limited new housing to be built around the existing villages of Bainbridge and Falmouth consistent with the location of public utilities and rezone to Agricultural land that is currently zoned Rural at the northern end of the Township near West Donegal Township.
- Encourage active adult housing developments in the vicinity of existing villages or in rural areas consistent with the ability of on-lot sewage and water to be properly provided.

### Elizabethtown Borough

- Administer property maintenance standards for residential properties through the enforcement of the Borough's Existing Structures and Property Maintenance Code to preserve the health, safety and welfare of individuals residing in the Borough.
- Ensure that all residents have opportunities for quality and affordable housing and recognize benefits to home ownership.
- Explore avenues to maximize residential density in the Borough as recommended by the Lancaster County Growth Management Plan.
- Review and update the Borough's Subdivision and Land Development Ordinance, Zoning Ordinance, and other ordinances to support investment and development of the existing housing stock and the management of infill

## Municipal Objectives & Strategies

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and growth within the Borough in accordance with the County's Smart Growth Initiatives.

- Administer the Residential Rental Unit Licensing and Inspection Program.

### Mount Joy Township

- Stabilize older housing stock by revising property maintenance ordinances to create enforceable regulations and investigate programs that encourage continuing investment on residential properties.
- Create ordinance regulations such as cluster development or conservation-by-design subdivisions that encourage flexible site design that promotes open space and sensitive natural feature protection.
- Investigate allowing flexibility (e.g. through special exception applications) in setback limitations for smaller homes or homes located on small lots (zero lot line, average lot line) to allow for owners to construct additions to increase the homes' value and keep them marketable within the growing housing stock.
- Review and update ordinances to ensure that future housing needs are met at the densities recommended by Lancaster County.
- Modify urban growth boundaries and limit large subdivisions to within these areas.
- Create regulations to encourage mixed use development to increase the community tax base and allow for an increase in a varied housing stock.
- Investigate opportunities to work with Lancaster County agencies and non-profit organizations to offer assistance to first time home buyers.

# Municipal Objectives & Strategies

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- Perform a regional fair share analysis to ensure that all municipalities in the region are providing opportunities to residents of all incomes and ages.

## West Donegal Township

- Coordinate new housing development approvals and land zoned for additional residential development with foreseeable public water and sewer capacities.
- Firmly establish and adopt a Township urban growth area coinciding with existing public utility locations and limit new residential development to those areas.

## **Community Facilities & Services**

### Conoy Township

- Preserve public access to the Susquehanna River currently provided at the Collins Road, Kings Road, Prescott Road, and Race Street street-ends.
- Complete the Township's segment of the Northwest Susquehanna River Trail.
- Acquire the approximately twelve (12) acres Fisherman's Wharf site to provide additional recreational opportunities and serve as trailhead site for the Rail Trail.
- Evaluate the feasibility of establishing public water supply in Falmouth.

### Elizabethtown Borough

- Explore the coordination with regional municipalities to research, construct, and facilitate a regional recycling center for the benefit of area residents.
- Support cooperation among the region to provide emergency services and management.



# Municipal Objectives & Strategies

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- Coordinate with EASD to plan for future development and growth management as it relates to public school facilities and transportation.
- Explore with GEARS the best use for the full development of the Poplar Street Community Center.
- Provide leadership and financial support for the Elizabethtown Public Library.
- Encourage the leadership of volunteer organizations that provide support and services to the community.
- Sewer
  - Meet or exceed the National Pollutant Discharge Elimination System (NPDES) standards as per DEP for all wastewater collection and treatment.
  - Cooperate with neighboring townships to plan for future growth and expansion.
  - Support Chesapeake Bay Initiatives in a mutually agreeable timetable.
- Water
  - Cooperate with EAWA and neighboring townships to plan for future growth and expansion.
  - Support the activities of the Elizabethtown Area Water Authority to provide sufficient, clean and safe drinking water to residents.

## Municipal Objectives & Strategies

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- Create safe connections (walking trails, bike paths, sidewalks) between residential developments and existing and future recreational and community facilities.
- Review current recreational trends and investigate opportunities to expand or to ensure there is space for expansion to meet current unmet or future needs.
- Maintain collaborative relationship with Lancaster County Career and Technology Center in development of Cove Outlook Park.

### West Donegal Township

- Work with Elizabethtown Borough in developing vacant lands near Willowood and link these lands to land surrounding the Township Building and beyond.
- Develop safe and interesting connections (trails, paths) to public and private recreational areas as well as the trails and recreation areas of the region's surrounding municipalities – place all connections on an Official Map.
- Acquire and Master Plan the Waste Management lands nearby the Township Building.
- Develop an agreement with Masonic Village for public use of its lands on West Bainbridge Street including the Patton Campus land.
- Coordinate recreational facilities management and program provision with GEARS.
- Ensure sufficient open space/recreation area is provided with the proposed new developments such as West Ridge Road, Turnpike Road, and Bossler Road.

## Municipal Objectives & Strategies

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- Evaluate the need and potential for recreational facilities in the Newville, Rheems, and Greenwich Church areas.

### Natural & Cultural Resources

#### Conoy Township

- Steer new housing towards current village centers (Bainbridge and Falmouth) and use zoning and subdivision and land development ordinances provisions so that new housing development fits in with the historic village style, environmental style, and context of each area.
- Focus non-residential uses toward zoned areas where they currently exist to minimize impacts to natural and cultural resources of the Township.

#### Elizabethtown Borough

- Adopt comprehensive land use strategies to guide growth and development to protect and spotlight the natural environment and preserve the quality of life in the community.
- Improve and protect air, water, and soil quality by protecting and preserving natural areas, waterways, and riparian buffers.
- Promote historic preservation activities in cooperation with the Elizabethtown Historical Society and Elizabethtown Preservation Associates.
- Address storm water management in accordance with current BMPs.
- Engage Elizabethtown College as a partner in support of town / gown relations.

#### Mount Joy Township

## Municipal Objectives & Strategies

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- Develop regulations to improve storm water management for new construction by encouraging the use of structural (detention basins, pipes, etc.) and non-structural (vegetation preservation, bio-retention facilities, etc.) techniques.
- Revise Storm Water Ordinance to create more stringent requirements for the maintenance of existing facilities and require developers to have a post-development net reduction in runoff.
- Create a steep slope overlay district that could potentially limit development or grading methods to preserve the natural lay of the land and reduce storm water runoff to adjacent lands.
- Revise and implement a TDR program for the Township and/or surrounding region.

### West Donegal Township

- Preserve, protect, and enhance the Township's scenic beauty and natural areas by strictly enforcing current storm water, sensitive areas, and agricultural protection regulations and considering provisions such as streamside vegetative buffers in new developments.
- Consider revisions to the Township zoning map that do not allow for more housing to be built than is projected to be needed by the target population determined for the Township in this Plan.
- Promote public awareness to the connection between wise land use and the continual attraction, health, and prosperity of the citizens of the Township in the Township Newsletter, through farm tours, school curriculum, etc.

# Municipal Objectives & Strategies

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## Agriculture

### Conoy Township

- Preserve the agricultural nature of the Township by rezoning to “Agricultural” lands currently zoned “Rural” located at the northern end of the Township towards West Donegal Township.
- Work on establishing public water service to the Falmouth area as an incentive for limited residential development there rather than in the agricultural parts of the Township.

### Elizabethtown Borough

- Designate lands within the Borough to serve as TDR receiving areas as part of a regional TDR program to promote preservation of land for farm use.

### Mount Joy Township

- Continue to direct residential, commercial, and industrial development away from prime farmland.
- Continue to encourage the County Conservation easement program and the State’s Agricultural Security Act to preserve land for farm use.

### West Donegal Township

- Consider revisions to the Township zoning ordinance to place maximum parcel sizes on land consumptive uses in the Rural zoning district such as private recreation areas, clubs, campgrounds, and churches to preserve land for farm use.

## **Municipal Objectives & Strategies**

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- Develop effective preservation strategies to meet the needs of landowners, to maximize funding opportunities of these landowners, and to preserve land for farm use.

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# **IMPLEMENTATION ACTIONS FUNDING SOURCES INFORMATION**

# Implementation Action Funding Sources Information

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## **Land Use Planning and Technical Assistance Program (LUPTAP)**

PA Department of Community and Economic Development

### **Overview:**

Preparing and updating of comprehensive community development plans, policies and implementing mechanisms such as zoning ordinances, subdivision regulations, functional plans such as downtown revitalization, water resource plans and land development regulations. Priority is given to any county government acting on behalf of its municipalities, any group of two or more municipalities, or a body authorized to act on behalf of two or more municipalities. State financial assistance under this Program may not be used for the following activities:

1. General government operating and maintenance expenses.
2. Ordinance codification.
3. Preparation of promotional campaigns, other than required participatory components necessary to the project.
4. Computer equipment including software, hardware and software development, or website development.
5. Applications determined to be inconsistent with the Commonwealth's and Program's objectives.

**Amounts:** No minimum or maximum amounts; 50% match required.

**Timing/Terms:** Open Application – submit anytime. Grants are awarded for up to a three (3) year time period beginning on July 1 of the fiscal year in which the grant is awarded.

### **Contact:**

PA Department of Community & Economic Development  
Commonwealth Keystone Building  
400 North Street, 4th Floor  
Harrisburg, PA 17120-0225  
Phone: 866-466-3972 (DCED Customer Service Center)  
Email: [ra-dcedcs@state.pa.us](mailto:ra-dcedcs@state.pa.us)

## **Local Municipal Resources and Development Program (LMRDP)**

PA Department of Community and Economic Development

### **Overview:**

Grants to municipalities and non-profit entities for improving the quality of life within a community. Grant awards may be used for construction or rehabilitation of infrastructure, building rehabilitation, acquisition and demolition of structures/land, revitalization or construction of community facilities, purchase or upgrade of machinery and equipment, planning of community assets, public safety, crime prevention, recreation, and training



# Implementation Action Funding Sources Information

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**Amounts:** No minimum or maximum; typical grants are between \$5,000 and \$25,000.

**Timing/Terms:** Open Application – submit anytime. Grants are awarded for up to a three (3) year time period beginning on July 1 of the fiscal year in which the grant is awarded.

**Contact:**

PA Department of Community & Economic Development  
Commonwealth Keystone Building  
400 North Street, 4th Floor  
Harrisburg, PA 17120-0225  
Phone: 866-466-3972 (DCED Customer Service Center)  
Email: [ra-dcedcs@state.pa.us](mailto:ra-dcedcs@state.pa.us)

## Municipal Transportation Grants Program

Lancaster County Planning Commission

**Overview:**

The Municipal Transportation Grants Program provides County financial assistance for transportation improvements initiated by and partially funded by municipalities, Red Rose Transit Authority (RRTA), Lancaster Airport Authority, Lancaster County Transportation Authority, or other providers of transportation facilities and services. The grant program can be used to fund those projects that meet the following purposes:

1. Projects that are primarily designed to improve safety, or reduce congestion, or to mitigate impacts due to regional growth and development.
2. Projects that primarily facilitate movement of County residents and their goods, including efforts to improve access to jobs.
3. Projects that emphasize improvement to existing corridors rather than construction of new roads.
4. Projects that would otherwise not be completed by the Pennsylvania Department of Transportation (PennDOT) on a timely basis.
5. Projects that address the movement of County residents by non-motorized methods of travel
6. Projects designed to support the County’s Smart Growth initiative as described by the current Growth Management Plan.

There are three grant categories within the Municipal Transportation Grants Program:

- A. Congestion Reduction Grants
- B. Safety Grants
- C. Non-motorized Transportation Grants

The three Categories of Grants are further broken down into urban and rural projects. Urban projects are located within an Urban Growth Area (UGA) or a Village

# Implementation Action Funding Sources Information

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Growth Area (VGA). Rural projects are those that are located outside of an Urban Growth Area (UGA), or a Village Growth Area (VGA).

**Amounts:** There is no specific amount of funding available for each of the three types of grants. Rather, each type is funded at a level commensurate with the relative level of need. For 2008, the maximum grant amount awarded was \$250,000. Typically one project is awarded per municipality in an attempt to spread the funding around the county. Matching ratios will be on a County dollar for two applicant dollar basis, meaning this is a 33/67 matching grant program - 67% of the funding from the applicant and 33% of the funding from the County. Applicants can provide their funds from a variety of sources including other municipalities, PennDOT, private developers, school districts, public authorities, etc. No other County funds or county funded programs can be used to match Municipal Transportation Grant funds.

**Timing/Terms:** Generally, in October, each municipality, RRTA, Lancaster Airport Authority, and Lancaster County Transportation Authority receives a copy of the application guidelines. In 2008, Notice of Intent forms were due in January and the application submission deadline was mid-February. Awards were announced by the Board of County Commissioners in April. For locally funded projects, municipalities must complete the project, or at least have the construction under contract, within 36 months of the date of the grant award. For projects receiving state or federal funds, municipalities have 48 months to accomplish the same.

**Contact:**

Lancaster County Planning Commission  
50 North Duke Street  
PO Box 83480  
Lancaster, PA 17608-3480  
Phone: 717-299-8333  
Fax: 717-295-3659

**2009-2012 Transportation Improvement Program (TIP) and  
2009-2035 Long Range Transportation Plan (LRTP)**

Lancaster County Planning Commission / Lancaster County MPO

**Overview:**

The LRTP is Lancaster County's federally required Plan as well as the Lancaster County Comprehensive Plan's Transportation Element. The TIP is the regionally agreed upon list of priority projects, as required by federal law (ISTEA, TEA-21, SAFETEA LU). The TIP document must list all projects that intend to use federal funds, along with non-federally funded projects that are regionally significant. Lancaster's TIP also includes all other State funded capital projects. The projects are multi-modal; that is, they include bicycle, pedestrian, freight related projects, and innovative air quality projects, as well as the more traditional highway and public transit projects.

The TIP is the agreed upon list of specific priority projects, showing estimated costs and schedule by project phase. The TIP covers four years in Pennsylvania and may

# Implementation Action Funding Sources Information

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be changed after it is adopted. Under the provisions of federal law and regulation, the approved TIP can be modified or amended in various ways in order to add new projects, delete projects, advance projects into the first year, and accommodate cost and phase of work changes or major scope changes to a project. The TIP is financially constrained. The list of projects in the TIP must be financially constrained to the amount of funds that are expected to be available. In order to add projects to the TIP, others must be deferred to maintain this financial constraint. As a result, the TIP is not a "wish list"; competition between projects for a spot on the TIP clearly exists. The TIP is authorization to seek funding. A project's presence in the TIP represents a critical step in the authorization of funding to a project. It does NOT, however, represent a commitment of funds, an obligation to fund, or a grant of funds.

**Timing:** A 30 day public review and comment period was held on both documents as well as two public meetings on May 22, 2008. Comments received at the meeting and during the 30 day public review/comment period and responses to these comments are summarized in Appendix F of the LRTP.

Both the TIP and LRTP were adopted by the Lancaster County Transportation Coordinating Committee on June 23, 2008. Adoption of the LRTP by the Lancaster County Commissioners as a functional element of the County's Comprehensive Plan will occur in October.

**Contact:**

Director of Transportation Planning  
Lancaster County Planning Commission  
50 North Duke Street  
PO Box 83480  
Lancaster, PA 17608-3480  
Phone: 717-299-8333  
Fax: 717-295-3659

**Congestion Mitigation and Air Quality Improvement Program (CMAQ)**

Federal Highway Administration

**Overview:**

The CMAQ program, jointly administered by the FHWA and the Federal Transit Administration (FTA), was reauthorized in 2005 under the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The SAFETEA-LU CMAQ program provides over \$8.6 billion dollars in funds to State DOTs, MPOs, and transit agencies to invest in projects that reduce criteria air pollutants regulated from transportation-related sources over a period of five years (2005-2009). Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas) as well as former nonattainment areas that are now in compliance (maintenance areas). The formula for distribution of funds, which considers an area's population by county and the severity of its ozone and carbon monoxide problems within the nonattainment or maintenance area, with

# Implementation Action Funding Sources Information

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greater weight given to areas that are both carbon monoxide and ozone nonattainment/maintenance areas, is continued.

The SAFETEA-LU requires States and MPOs to give priority in distributing CMAQ funds to diesel engine retrofits, and other cost-effective emission reduction and congestion mitigation activities that provide air quality benefits. The main goal of the CMAQ Program is to fund transportation projects that reduce emissions in nonattainment and maintenance areas. CMAQ funds are available to a wide range of government and non-profit organizations, as well as private entities contributing to public/private partnerships, but are controlled by the MPO and the State DOT. Often, these organizations plan or implement air quality programs and projects as well as provide CMAQ funding to others to implement projects.

Organizations interested in obtaining CMAQ funding need to develop their ideas and prepare a project proposal using State DOT or MPO procedures. The project proposal must document how the project will provide emissions benefits before CMAQ eligibility is determined. Wherever possible, a quantitative emissions reduction estimate should be presented, although certain project categories, such as public education, marketing, or other outreach efforts are not easy to assess quantitatively. Instead, for these projects, a logical explanation of the emission reduction contribution and air quality benefit may be acceptable.

## **Contact:**

Director of Transportation Planning  
Lancaster County Planning Commission  
50 North Duke Street  
PO Box 83480,  
Lancaster, PA 17608-3480  
Phone: 717-299-8333  
Fax: 717-295-3659

## **Transportation Enhancement (TE)**

Federal Highway Administration

## **Overview:**

Transportation Enhancements (TE) activities are federally funded, community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. TE projects must be one of 12 eligible activities and must relate to surface transportation.

For example, projects can include creation of bicycle and pedestrian facilities, streetscape improvements, refurbishment of historic transportation facilities, and other investments that enhance communities and access. The federal government provides funding for TE projects through our nation's surface transportation legislation.

## Implementation Action Funding Sources Information

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1. **Pedestrian and bicycle facilities**—Sidewalks, walkways or curb ramps; bike lane striping, wide paved shoulders, bike parking and bus racks; off-road trails; bike and pedestrian bridges and underpasses.
2. **Pedestrian and bicycle safety and educational activities**—Campaigns promoting safety awareness; safety training activities and classes; training materials.
3. **Acquisition of scenic or historic easements and sites**—Acquisition of scenic lands or easements; purchase of historic properties or buildings in historic districts, including historic battlefields.
4. **Scenic or historic highway programs including tourist and welcome centers**—Construction of turnouts and overlooks; visitor centers and viewing areas; designation signs and markers.
5. **Landscaping and scenic beautification**—Improvements such as street furniture, lighting, public art and landscaping along travel corridors.
6. **Historic preservation**— Preservation of buildings and facades in historic districts; restoration of historic buildings for transportation-related purposes; access improvements to historic sites.
7. **Rehabilitation and operation of historic transportation buildings, structures or facilities**— Restoration of railroad depots, bus stations and lighthouses; rehabilitation of rail trestles, tunnels, bridges and canals.
8. **Conversion of abandoned railway corridors to trails**—Acquisition of railroad rights-of-way; planning, design and construction of multi-use trails and rail-with-trail projects.
9. **Inventory, control, and removal of outdoor advertising**— Billboard inventories and removal of illegal and nonconforming billboards. Inventory control may include, but not be limited to, data collection, acquisition and maintenance of digital aerial photography, video logging, scanning and imaging of data, developing and maintaining an inventory and control database, and hiring of outside legal counsel.
10. **Archaeological planning & research**— Research, preservation planning and interpretation; developing interpretive signs, exhibits and guides; inventories and surveys.
11. **Environmental mitigation of runoff pollution and provision of wildlife connectivity**— Runoff pollution studies; soil erosion controls; detention and sediment basins; river clean-ups; wildlife underpasses.

## Implementation Action Funding Sources Information

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12. **Establishment of transportation museums**—Conversion of railroad stations or historic properties into museums with transportation themes; construction of new museums; purchase of exhibit materials.

**Amounts:** The federal government provides funds for the TE program through reimbursement. That is, the project sponsor is expected, in most cases, to pay the full cost of the project up front and will be later reimbursed by the federal government through PennDOT. Generally, the federal government will reimburse up to 80 percent of a TE project cost. Not all types of project expenses are reimbursable, however. Reimbursable costs vary from state to state but usually include: project feasibility, planning and engineering plans, environmental reviews, land acquisition and construction. The remaining 20 percent of the project cost is generally the responsibility of the project sponsor. The sponsor may generate these "matching funds" from a variety of sources. The value of donated materials, services and land; funds from other state or non-DOT federal programs; the value of local and state government services, and the value of preliminary engineering prior to project approval may be counted towards the matching requirement in most states.

**Contact:**

PA Department of Transportation  
Program Center  
400 North Street  
Commonwealth Keystone Building - 6th Floor  
Harrisburg, PA 17120  
Tel: 717-787-2962 Fax: 717-787-5247

### **Lancaster County Urban Enhancement Fund**

Lancaster County Planning Commission

**Overview:**

This program was created in support of community and economic development activities that enhance and sustain the urban areas of Lancaster County as attractive places to live, learn, work and play. Categories of funding include: (1) Building and/or Property Acquisition; (2) Building and/or Property Rehabilitation; (3) Pre-Development Costs (including approved demolition, feasibility studies, design and engineering); (4) Downtown Revitalization Projects; (5) Construction or Rehabilitation of Infrastructure; (6) Revitalization or Construction of Community Facilities; (7) Creation of Local Economic Development Strategy (or other document/plan that will guide a community's economic and community development efforts); (8) Creation of Historic Resources Inventory. In order to focus limited resources on the core urban areas of the County, only project sites within the City of Lancaster, one of Lancaster's 18 Boroughs or an adopted Urban Growth Area of a township in the County of Lancaster are eligible for funding.

**Amounts:** The County intends to limit individual project awards to a maximum of \$250,000. The County seeks to provide **no more than 33%** of total project costs (for any project). Consequently, the Fund seeks to match dollars committed to a

# Implementation Action Funding Sources Information

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project on a 2:1 basis (at least two dollars for every one dollar granted by the Fund). However, the County will **consider** applications requesting up to 50% of total project costs. Applicants must provide detailed justification as to the need for additional county funds

**Timing/Terms:** Generally, the application period opens in April with the deadline for submission in June. Grant funds are awarded with the understanding that said funds will be spent and the project completed within a twenty-four month period from the date of the executed grant agreement. If the grant recipient requires additional time to complete an approved project, it may request one such time extension (of up to 12 months) in writing to the County.

**Contact:**

Lancaster County Planning Commission  
50 North Duke Street  
PO Box 83480  
Lancaster, PA 17608-3480  
Phone: 717-299-8333  
Fax: 717-295-3659  
Email: HamptonL@co.lancaster.pa.us

**Various Emergency Management Grant Programs**

PA Emergency Management Agency / PA Office of Homeland Security

**Overview:** The mission of the Pennsylvania Emergency Management Agency is to coordinate state agency response, including the Office of the State Fire Commissioner and Office of Homeland Security, to support county and local governments in the areas of civil defense, disaster mitigation and preparedness, planning, and response to and recovery from man-made or natural disasters. The following grant programs can be accessed through PEMA for use by county and/or local governments:

[Emergency Management Performance Grant](#)

[Flood Mitigation Assistance Program](#)

[Hazardous Materials Emergency Preparedness Planning and Training Grants](#)

[Hazardous Materials Response Fund](#)

[Integrated Flood Observing and Warning System - IFLOWS](#)

[Pre-Disaster Mitigation Program](#)

[Radiation Transportation Emergency Response Fund](#)

[Radiological Emergency Response Fund](#)

[Repetitive Flood Claims Program](#)

[Severe Repetitive Loss Program](#)

The Pennsylvania Office of Homeland Security resides within the Pennsylvania Emergency Management Agency (PEMA); the Director reports to the Director of PEMA. The Office is a separate, functioning entity from the U.S. Department of Homeland Security; it serves as the conduit/liaison between the Federal department and the Commonwealth departments/agencies.

# Implementation Action Funding Sources Information

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The general mission of Office is to support the Governor's all-hazards approach toward Homeland Security and Emergency Preparedness. Specifically, the Director is responsible for identifying critical infrastructure, developing strategies to mitigate risk, and leveraging both public and private sector resources to reduce vulnerabilities. The following grant programs can be accessed through Office of Homeland Security for use by state, county and/or local governments:

Buffer Zone Protection Program (BZPP)  
Emergency Management Performance Grant (EMPG)  
Homeland Security Grant Program (HSGP)  
Intercity Bus Security Grant Program (IBSGP)  
Operation Stonegarden (OPSG)  
Port Security Grant Program (PSGP)  
Regional Catastrophic Preparedness Grant Program (RCPGP)  
Transit Security Grant Program (TSGP)  
Trucking Security Program (TSP)  
UASI Non-Profit Security Grant Program (NSGP)  
Real ID Grant Guidance and Application Kit

## **Community Revitalization Program (CRP)**

PA Department of Community and Economic Development

### **Overview:**

Provides grant funds to support local initiatives that promote community stability and quality of life. Local Government, municipal and redevelopment authorities and agencies, industrial development authorities and agencies, non-profit organizations incorporated under the laws of the Commonwealth, community organizations engaged in activities consistent with the program guidelines. Eligible uses include construction or rehabilitation of infrastructure, building rehabilitation, acquisition and demolition of structures/land, revitalization or construction of community facilities, purchase or upgrade of machinery and equipment, planning of community assets, public safety, crime prevention, recreation, and training

**Amounts:** No minimum or maximum amounts; however, typical grants range from \$5,000 - \$25,000.

**Timing/Terms:** Open Application – submit anytime. Grants are awarded for up to a three (3) year time period beginning on July 1 of the fiscal year in which the grant is awarded.

### **Contact:**

PA Department of Community & Economic Development  
Commonwealth Keystone Building  
400 North Street, 4th Floor  
Harrisburg, PA 17120-0225  
Phone: 866-466-3972 (DCED Customer Service Center)



# Implementation Action Funding Sources Information

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Email: [ra-dcedcs@state.pa.us](mailto:ra-dcedcs@state.pa.us)

## **Emergency Responders Resources & Training Program (ERRTP)**

PA Department of Community and Economic Development

### **Overview:**

ERRTP funds may be used for emergency responder improvement projects. These projects must demonstrate a benefit to community activities associated with police, fire, ambulance or related public safety services. DCED awards grants to Emergency Responders (i.e., fire companies, ambulance services) for a variety of uses related to supporting the emergency responder entity.

**Amounts:** The amount of awards vary and there is no match required.

**Timing/Terms:** Open Application – submit anytime. Grants are awarded for up to a three (3) year time period beginning on July 1 of the fiscal year in which the grant is awarded.

### **Contact:**

PA Department of Community & Economic Development  
Commonwealth Keystone Building  
400 North Street, 4th Floor  
Harrisburg, PA 17120-0225  
Phone: 866-466-3972 (DCED Customer Service Center)  
Email: [ra-dcedcs@state.pa.us](mailto:ra-dcedcs@state.pa.us)

## **Local Government Capital Project Loan Program (LGCPL)**

PA Department of Community and Economic Development

### **Overview:**

Low-interest loans to local governments with populations of 12,000 or less for equipment and facility needs. Grants may be used for rolling stock and data processing equipment purchases or the purchase, construction, renovation or rehabilitation of municipal facilities

**Amounts:** 50% of the total cost of purchasing equipment up to a maximum of \$25,000 or 50% of the total cost for purchase, construction of renovation of municipal facilities up to a maximum of \$50,000

**Terms:** 2% interest rate; Repaid over a period not to exceed 10 years or the useful life of the equipment or facility; Refer to program guidelines

**Timing/Terms:** Open Application – submit anytime. Grants are awarded for up to a three (3) year time period beginning on July 1 of the fiscal year in which the grant is awarded.

# Implementation Action Funding Sources Information

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**Contact:**

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Email: [ra-dcedcs@state.pa.us](mailto:ra-dcedcs@state.pa.us)

**Community Conservation Partnerships Program**

PA Department of Conservation and Natural Resources

**Overview:**

The Community Conservation Partnerships Program (C2P2) is a combination of several funding sources and grant programs: the Commonwealths Keystone Recreation, Park and Conservation Fund (Key 93), the Environmental Stewardship and Watershed Protection Act (Growing Greener), and Act 68 Snowmobile and ATV Trails Fund. The Program also includes federal funding from the Land and Water Conservation Fund (LWCF) and the Recreational Trails component of the Transportation Equity Act for the Twenty-first Century (TEA-21). The C2P2 contains the following grant components: Community Recreation, Land Trusts, Rails-to-Trails, Rivers Conservation, Snowmobile/ATV, Heritage Parks, Land and Water Conservation Fund and Recreational Trails. Projects for acquisition, planning and park/recreation development are accepted. DCNR strongly encourages all applicants to contact their Regional Recreation and Park Adviser to discuss the proposed project and the program application requirements prior to submitting an application.

**Amounts:** There is no established funding limits for grants. Generally a 50% match is required except for small community grant types whose total project costs are \$60,000 or less and some technical assistance grants. Match requirements vary for the PA Recreational Trails and Snowmobile/ATV grants.

**Timing/Terms:** Except for the Heritage Parks grants, all other components have been combined into one annual application cycle and use a single application format and process with one grant manual and one set of application forms. The most recent application deadline was in April.

**Contact:**

PA Department of Conservation and Natural Resources  
Bureau of Recreation and Conservation  
Rachel Carson State Office Building, 6th Floor  
400 Market Street  
P.O. Box 8475  
Harrisburg, PA 17105-8475

# Implementation Action Funding Sources Information

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## Lancaster County Parks and Recreation Grant

Lancaster County Planning Commission

### Overview:

Most recently, funding from Lancaster County for parks and recreation projects was available through the Lancaster County Urban Enhancement Fund. The County has announced that they are in the process of developing a separate funding resource to address the park and recreation needs in Lancaster.

### Contact:

Lancaster County Planning Commission

50 North Duke Street

PO Box 83480

Lancaster, PA 17608-3480

Phone: 717-299-8333

Fax: 717-295-3659

## Growing Greener

Commonwealth of Pennsylvania

### Overview:

Signed into law on December 15, 1999, and reauthorized in June 2002, Growing Greener is the largest single investment of state funds in Pennsylvania's history to address Pennsylvania's critical environmental concerns of the 21st century. Growing Greener is intended to slash the backlog of farmland-preservation projects statewide; protect open space; eliminate the maintenance backlog in state parks; clean up abandoned mines and restore watersheds; provide funds for recreational trails and local parks; help communities address land use; and provide new and upgraded water and sewer systems.

Growing Greener funds are distributed among a number of state agencies:

- The **Department of Agriculture** to administer farmland preservation projects;
- The **Department of Conservation and Natural Resources** for state park renovations and improvements;
- The **Pennsylvania Infrastructure Investment Authority** for water and sewer system upgrades;
- The Department of Community and Economic Development oversees the \$50 million of Growing Greener II funding dedicated specifically for **downtown improvement projects**. Local government entities and non-profit organizations are eligible to **apply for the grant funds**, which can be used for acquisition, predevelopment, construction, renovation and capital costs of infrastructure projects that are located in a municipality's central business district;
- The Department of Environmental Protection is authorized to allocate \$230 million to clean up rivers and streams; restore abandoned mines and contaminated industrial sites; and finance the development and deployment of advanced energy projects. Specifically, project funding is available for mine

## Implementation Action Funding Sources Information

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and acid mine drainage remediation, **flood protection**, remediation of environmental contamination at former industrial sites, advanced energy projects, and oil and gas well plugging. In addition, **funding is also available for watershed protection projects** including, drinking water and wastewater treatment infrastructure construction and enhancement, dam rehabilitation and removal, and implementation of projects identified in the State Water Plan.

The total dollar commitment to the Growing Greener Program was recently doubled from \$645 million to \$1.3 billion and extended through 2012 by a permanent dedication of a new \$4/ton municipal waste disposal fee to Growing Greener-- \$50 million in FY 2002-03 (the balance going to the General Fund for this one year) and the full \$94 million to Growing Greener from FY 2003-04 through 2012.

### **County Environmental Initiative (potential future round);**

Growing Greener II established the County Environmental Initiative program and authorized \$90 million of the Growing Greener bond fund to be available for capitol improvement projects designated by Pennsylvania counties. While Lancaster County's initial allocation of Growing Greener / County Environmental Initiative funding has been distributed, there exists the potential for future county-based funding opportunities.

### **Energy Harvest Program**

PA Department of Environmental Protection

#### **Overview:**

Energy Harvest promotes awareness and builds markets for cleaner or renewable energy technologies. Funding may be used for projects involving the following types of fuels, technologies or measures: clean, alternative fuels for transportation; solar energy; wind; low-impact hydropower; geothermal; biologically derived methane gas, including landfill gas; biomass; fuel cells; coal-mine methane; waste coal; integrated gasification combined cycle; demand management measures, including recycled energy and energy recovery, energy efficiency and load management.

Eligible applicants include an incorporated 501(c)(3) non-profit organization that is also registered with the Pennsylvania Bureau of Charitable Organizations; a county or municipal government; county conservation district; Council of Governments; a school, school district, college or university; or an incorporated watershed organization recognized by DEP. For-profit entities are no longer eligible to apply directly for the Energy Harvest Grant Program. Businesses with fewer than 100 employees, particularly agricultural enterprises that provide a watershed benefit, however, are encouraged to find an eligible sponsor to apply on their behalf. Projects that are primarily education, outreach, feasibility, assessment, planning, or research and development are not eligible. Energy Harvest funding comes from more than one source, some of which have different requirements and allowable expenditures. Funds may be used for equipment and supplies, contractor expenses, salaries and

# Implementation Action Funding Sources Information

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benefits, travel, and, for less than 2% of the grant, administrative costs. For some projects, construction costs may be eligible.

**Amount:** The maximum grant is \$500,000 with the average grant being approximately \$190,000.

**Timing:** The grant period typically lasts for two years, with a subsequent one year follow-up report. There are quarterly progress reports, final reports, and a one-year follow up report. Reports must be provided, at minimum, every calendar quarter, but must also accompany any requests for reimbursement.

**Contact:**

Kerry Campbell  
OETD  
400 Market Street, 15th Floor  
Harrisburg, PA 17101  
717-783-8411

**PA Energy Development Authority**

PA Department of Environmental Protection

**Overview:**

The Pennsylvania Energy Development Authority (PEDA) is an independent public financing authority that was created in 1982 by the Pennsylvania Energy Development Authority and Emergency Powers Act and that was revitalized by Governor Rendell through an April 8, 2004, Executive Order. The Authority's mission is to finance clean, advanced energy projects in Pennsylvania. Pennsylvania projects that could potentially qualify for funding from the Authority include solar energy, wind, low-impact hydropower, geothermal, biomass, landfill gas, fuel cells, IGCC, waste coal, coal-mine methane, and demand management measures. The Authority presently can award grants, loans, and loan guarantees. Tax-exempt and taxable bond financing for clean, advanced energy projects also are available through the Pennsylvania Economic Development Financing Authority (PEDFA).

For purposes of PEDA financial assistance, alternative energy projects means projects involving the following types of fuels, technologies or measures: clean, alternative fuels for transportation; solar energy; wind; low-impact hydropower; geothermal; biologically derived methane gas, including landfill gas; biomass; fuel cells; coal-mine methane; waste coal; integrated gasification combined cycle; demand management measures, including recycled energy and energy recovery, energy efficiency and load management. Typically feasibility studies are not eligible for PEDA. In addition, because the pool of funding currently available comes from tax-exempt bonds, funds may only be used for capital projects.

PEDA cannot pay for pure research because the funds available must be used for capital-type projects. However, PEDA may be able to fund capital equipment, land for the construction or improvement of a facility, or facilities to install capital equipment for research. Handheld tools, equipment and instruments are generally

## Implementation Action Funding Sources Information

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not eligible. Because the funds may be used for capital projects, each of the following categories are eligible: equipment purchase, construction, contractor expenses, and engineering design necessary for construction or installation. Feasibility studies are not eligible. All legal entities within the Commonwealth are eligible to apply. Individual residents are not eligible.

**Amount:** The maximum grant is \$1,000,000 and the average grant is approximately \$375,000.

**Timing:** The grant period typically lasts for two years, and a subsequent one year follow-up report is required. There are quarterly progress reports, project completion reports, and a one-year follow up report. In addition, the PEDAs Board of Directors may request some grantees to provide a status report of their project at a PEDAs Board of Directors meeting.

**Contact:**

DEP Grants Center-PEDA  
Rachel Carson State Office Building  
400 Market Street, 15th Floor  
P.O. Box 8776  
Harrisburg, PA 17105-8776  
Phone: (717) 783-8411  
E-mail: [epaenergy@state.pa.us](mailto:epaenergy@state.pa.us)

### Community Development Block Grant

Pennsylvania Department of Community and Economic Development  
Lancaster County Housing and Redevelopment Authority

**Overview:**

Grants and technical assistance for federal designated municipalities for any type of community development.

**Amount:**

Entitlement funding is set by formula; Competitive Program - \$500,000 maximum  
70% of each grant must be used for activities that benefit low- and moderate-income persons.

**Timing:**

The grant period lasts for one year from award. Applications typically due in mid-year with award announcement annually each fall.

**Contact:**

Dept of Community & Economic Development  
400 North Street, 4th Floor

## **Implementation Action Funding Sources Information**

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Commonwealth Keystone Building  
°Harrisburg, PA 17120-0225

Lancaster County Housing and Redevelopment Authority  
Attention: Mike Urenovitch  
202 N. Prince Street, Suite 400  
Lancaster, PA 17603-3528  
717-394-0793  
[www.lchra.com](http://www.lchra.com)

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# **COMMUNITY SURVEY RESULTS EXECUTIVE SUMMARY**

Spring 2009



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## **Executive Summary**

In fall of 2008, a Community Survey to Develop a Strategic Comprehensive Plan for Conoy Township, Elizabethtown Borough, Mount Joy Township and West Donegal Township was made available to residents online at each of the municipalities' websites and in hard copy format at the municipal offices, the Elizabethtown Fair, and at the polling places on November 4, 2008 election day. The construction of this survey was a joint effort by officials from the municipalities of Conoy, West Donegal, and Mount Joy Townships as well as Elizabethtown Borough. The resulting report was compiled by the resident intern at West Donegal Township.

The purpose of this survey was to gauge public opinion on several topics relevant to the development of a new regional comprehensive plan. The survey was made up of the following seven sections: General, Living in Our Community, Development and Housing, Transportation, Parks and Recreation, Zoning and Miscellaneous. The following are short summaries of each section of the survey which note several significant results:

### **General:**

The survey was available to all residents in the noted townships and in Elizabethtown Borough, and 317 responses were received collectively from all municipalities involved. Given that the region is home to a population of roughly 30,000 individuals the response rate for this survey can be reasonably estimated around 1%. Elizabethtown Borough's residents made up the greatest number of respondents at 44.5% closely followed by Mt. Joy Township at 38.2%. Overall, residents rated the quality of life in the Elizabethtown area as being "Excellent" or "Good" and 32.5% of residents have made the Elizabethtown area their workplace residence as well.

### **Living in Our Community:**

Overall, respondents shared a typically positive feeling about living in our community. Many respondents reported an average to high feeling of community neighborliness and community identity. While 31.4% of respondents felt that taxes in this area are "high" or "very high" a notable 83% rated the quality of schools in the area as being either "good", "very good" or "excellent", and also rated municipal services such as police and fire protection very

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favorably.79.4% of respondents reported that they “always” shop for their groceries in Elizabethtown, while shopping for clothing in the area is much less popular. Most respondents stated that the condition of their properties in their neighborhoods was generally good, and 66.2% felt that historic preservation within the community was either “very important” or “important”.

### **Development & Housing:**

Respondents replying to questions in this section overwhelming showed a trend of valuing the promotion and preservation of agricultural prospects. Not unsurprisingly, 72.2% responded that they felt housing in the area is growing “a little too fast” or “much too fast” and subsequently responded that they would like to see government limit future housing growth. Over 50% of respondents responded that they felt the current mix of housing supply in the area is adequate, although the most popular suggestions for additions to the mix included senior housing, mid-level housing and starter homes.

### **Travel/Transportation:**

In this section respondents overwhelming replied that they felt that the condition of local roads and ice and snow removal efforts were either good or excellent. Peak congestion, however, was cited as a “significant problem” by 47.6%, and not surprisingly, 47% called for additional public transit. While many respondents did not cite what type of public transit they would prefer, 30% of those that did mentioned that a public bus would be beneficial to the area.

### **Parks and Recreation:**

Respondents overall cited their general approval of trails, athletic facilities and parks, but felt that both areas of youth and adult recreation could use improvement. While respondents generally favored the acquisition of new land for parkland (67.3%), there is about a 50-50 divide between those willing to see their taxes increased for the purchase and those who weren't. When asked if the municipalities should develop a regional trail system, 68% responded with support for the initiative.

### **Zoning:**

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About 60% of respondents feel that zoning regulations for the area are “generally ok” while about 10% felt they were “too restrictive” and around 14% claimed they were “too lenient”. Respondents gave a general “good” rating to zoning enforcement and process, but were more divided on whether they felt zoning is adequate to best manage future growth. Support for the regional cooperation and the regionalization of services was evident at around 85% and 70% respectively.

**Miscellaneous:**

In this section, respondents were asked whether they felt adequately informed about local area government to which around 30% said “yes”, about 20% said “no” and 40% replied “sometimes”. Individuals cited a variety of different reasons for their responses, some saying they feel informed because they can read meeting minutes in the local newspapers or in the newsletters that are distributed, while others stated that the timing and structure of the meetings did not encourage their attendance, among other reasons. This section also determined that about 84% of respondents have access to the internet at home, 53% at work, and 7% not having access of any kind.

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# **MUNICIPALITIES' IMPLEMENTATION MEMORANDUM OF UNDERSTANDING**

## **A Memorandum of Understanding among Conoy Township, Elizabethtown Borough, Mount Joy Township, and West Donegal Township concerning the development, adoption and implementation of the PLAN.**

### 1. Introduction

The communities of Conoy Township, Elizabethtown Borough, Mount Joy Township, and West Donegal Township are looking to and planning for their future. They have joined together to create new opportunities for regional partnership, growth, and prosperity through the development and implementation of a regional strategic plan. The PLAN will balance municipal interests, encourage collaborative efforts, and recommend actions to achieve the region's goals.

In recognition of their common strategic aims and objectives, the four participating municipalities have concluded that a regional approach to PLAN implementation offers potential benefits. The municipalities have therefore formally committed themselves to working in partnership with each other. This Memorandum of Understanding provides the framework for developing the partnership arrangements between the municipalities.

### 2. Purpose

The purpose of the Memorandum of Understanding is to formalize the agreement between the four participating municipalities to develop, adopt and implement a strategic regional plan (PLAN). All parties to this Memorandum of Understanding share the conviction that their community's quality of life is dependent upon managed growth that seeks to preserve and enhance the unique character of the region. In order to maintain and improve the quality of life, it is essential that all four participating municipalities support thoughtful community planning, economic development, environmental protection, and other initiatives, which will be mutually advantageous to all parties, and agree to the goals, objectives, and policies of the PLAN.

The Memorandum of Understanding sets forth the following elements:

- a. The four participating municipalities will actively participate in the development of the strategic regional plan (PLAN).
- b. The four participating municipalities will ensure that the PLAN includes a detailed implementation strategy and schedule for each plan section.
- c. The governing bodies of the four participating municipalities will adopt the PLAN within ninety days of the last public hearing.

- d. The four participating municipalities will appoint an overall advisory body both to monitor and guide the implementation of the PLAN and to oversee appropriate and timely review and revisions to the PLAN.
- e. The four participating municipalities agree to review their respective zoning ordinances and subdivision and land development ordinances within five years of adoption in order to comply with the goals and objectives of the PLAN.
- f. The four participating municipalities will agree to a timeline before the conclusion of the planning process within which they will discuss and review the key goals and objectives of the PLAN.

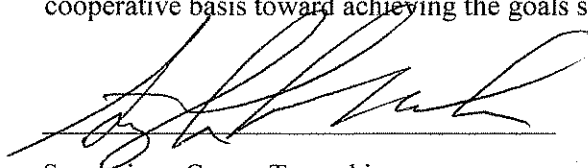
### 3. Guiding Principles

- a. **Transparency.** The four participating municipalities are committed to ensuring that the planning, development and implementation of the PLAN is as transparent as possible to all, including the public.
- b. **Communication.** It is imperative that the four participating municipalities communicate effectively with each other. This is particularly so when determining the viability of any new initiatives and working practices that may have an impact on the development and implementation of the PLAN. Effective communication between the four participating municipalities and the wider public will be managed through the implementation of a regional communication plan.
- c. **Collaboration.** Actions and decisions recommended by the four participating municipalities should reflect the best interests of the region. The four participating municipalities accept the need to work closely together to provide effective and sustainable implementation of the PLAN. The municipalities agree to collectively monitor and review the effectiveness of the adopted PLAN and to provide revisions and updates as appropriate. The municipalities agree to work together in a spirit of mutual trust, support and respect, and to ensure that when difficulties arise they are addressed quickly, honestly and openly.


### 4. Changes to the Memorandum of Understanding

Any proposed amendments to the Memorandum of Understanding will be raised at joint meetings between officers of the four participating municipalities. Proposed changes will be reviewed and formally recommended for approval by their respective governing bodies. Changes to the agreement must enhance the delivery of the aims and objectives of the PLAN without prejudicing any of the four participating municipalities.

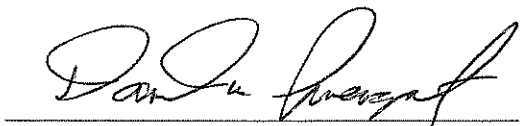
The four municipalities (Conoy Township, Elizabethtown Borough, Mount Joy Township, and West Donegal Township) concur with the provisions of the memorandum and agree to work on a cooperative basis toward achieving the goals set forth herein.

  
\_\_\_\_\_  
Supervisor, Conoy Township

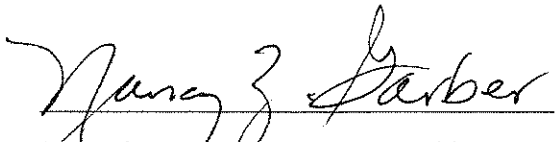
6-12-09  
Date

  
\_\_\_\_\_  
Borough Council President, Elizabethtown Borough

5/28/09  
Date

  
\_\_\_\_\_  
Supervisor, Mount Joy Township

May 26, 2009  
Date

  
\_\_\_\_\_  
Supervisor, West Donegal Township

June 4, 2009  
Date

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# **REGIONAL PLAN COMMUNICATION PLAN**



# Communication Plan

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## Introduction / Purpose

The Northwest region of Lancaster County is **looking to** and **planning for** its future. When communities expand their planning scale beyond their own borders, the resulting region requires a strong framework to guide their efforts. The communities of Conoy Township, Elizabethtown Borough, Mount Joy Township, and West Donegal Township have joined together to create new opportunities for regional partnership, growth, and prosperity. Their efforts will be guided by the strategies outlined in the Regional Strategic Plan. The process to create the Regional Strategic Plan is currently underway and anticipated for adoption in 2010.

A good strategic Communication Plan is fundamental to both the development and delivery of an effective and accountable regional plan. For the purposes of this planning effort, the region will adopt a Short-Term plan to guide communications during the creation of the Regional Strategic Plan and a Long-Term plan to direct and sustain communication activities throughout regional implementation. The following **Regional Strategic Plan Short-Term Communication Plan** proposes a proactive approach to foster effective two-way communication, enable regional problem solving, and deliver strong and consistent information. Both the Short-Term and Long-Term Communication Plans will reinforce the goals of the Regional Strategic Plan, thus underscoring the idea of a region with one common purpose: the citizens.

## Core Communication Values / Foundation for Regional Communication

The following core values are essential to cultivating effective regional communication:

- Communication is a two way process. The Region will work to emphasize and practice active listening and encouraging feedback.
- Communication will be accurate and timely. To be influential, regional communication must be credible.
- Communication will be grounded in the interests and language of the receiver in both content and context.

# Communication Plan

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- Communication will be compelling and continuous to compete for regional audience attention.
- Evaluation is an essential tool in continual communication improvement.

Through commitment to the above core values, the region will be able to build and maintain a strategic communication system based on a strong foundation, including the following principles:

- Participating communities are committed to making a good start in the collaborative regional planning effort and then turning that momentum into an established pattern for communication. Early and continual communications will be a key to developing a long term regional communication system.
- No one community will dominate in regional communications. As in the planning process, all must participate equally.
- Although the Regional Strategic Plan Communication Plan has an overall regional goal (strategies and tactics), it will respect regional differences.
- The success of the regional communication effort will require that the region invest in it. Communication, like all aspects of intermunicipal cooperation, takes resources. The Region will address, at the earliest possible time, where such resources will come from and how they will manage them over the long term.
- For the Regional Strategic Plan to achieve sustainable implementation, the communication system needs to come from a stable institutional base. The strategy requires both strong leadership and accountability to ensure the consistent delivery of communication activities.

# Communication Plan

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## Communication Ground Rules

It is important at the initial stages of the planning process to agree a set of ground rules for communication during the development of the regional strategy. This is an important and fundamental basis for valuing and respecting the individuals and organizations from the participating communities and as well as the communities themselves. Ground rules define a behavioral model which addresses how individuals work together, communicate, participate, cooperate, and support each other. They may be used to define and standardize Steering Committee procedures, use of time, work assignments, meeting logistics, preparation, minutes, discussion, reporting, respect and courtesy. To be effective, ground rules must be clear, consistent, agreed-to, and followed; furthermore, they should be added to and revised as needed.

### Regional Strategy Meeting Logistics

- We will hold a regular monthly meeting on the fourth Thursday beginning at 6:00 PM. Location of the meeting will rotate among the four communities.
- All meetings will have an agenda. The agenda and any additional materials to be discussed at the meeting will be developed by the Consultant Team and distributed to team members ahead of the meeting.
- Steering Committee members are responsible for contacting the Consultant Team with any agenda items they want to include at least two weeks prior to each meeting. Agenda items can be added at the meeting with the concurrence of the team.
- All Steering Committee members are expected to attend monthly meetings unless they are out of town, on vacation or sick. If a Steering Committee member is unavailable, he or she should have a designated, empowered representative (another team member, a representative from their functional organization, etc.) attend in their place.

# Communication Plan

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- Meetings will start promptly on time. All members are expected to be on-time. If, for extenuating circumstances a member is late, he/she must catch-up on their own.
- The responsibility for taking and distributing meeting minutes rests with the Consultant Team. Meeting minutes will be distributed within three (3) business days after the meeting.
- An action item list with responsibilities will be maintained, reviewed in meetings, and distributed with the meeting minutes.
- Additional meetings can be scheduled to discuss critical issues or tabled items upon discussion and agreement with the Consultant Team.

## General Rules of Engagement

- Practice self-respect and mutual respect.
- Practice both active and reflective listening. Before making your point, confirm to the group that you have understood the views of others by restating their point in your own words and seeking agreement that you truly understand the prior points.
- Steering Committee members will emphasize collaboration and use consensus for important decisions and issues. For less important issues, we will rely on the subject matter expert with input from others. When the Steering Committee cannot reach consensus, an agreed upon alternative method for reaching a final agreement is implemented.
- No finger pointing -- address the process not the individual.

# Communication Plan

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- Focus on the future, instead of getting stuck in the past.
- Watch for "trigger words -- language IS important.
- Be open to new concepts and to concepts presented in new ways. Keep an open mind.
- Appreciate other points of view.
- If need be, agree to disagree.
- Relax. Be yourself. Be honest.
- Participate enthusiastically.
- No one should feel silenced and if you do, take it up with the Consultant Team at the earliest possible opportunity.
- One person talks at a time. Allow the person speaking to finish their statements. Don't interrupt someone while they are talking.
- Include everyone in the discussion. Allow each participant to speak on an issue once before anyone gets to speak twice on the same issue.
- Avoid the use of "killer" statements; don't shoot down ideas.

# Communication Plan

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- Handle differences or conflicts openly and positively. Differing perspectives about issues and approaches will be regarded as *challenges to be met* rather than as *battles to be won*.
- When we pose an issue or a problem, we will also try to present a solution.
- Participate in “one” meeting and discuss items being handled by the entire group.
- Questions, ideas, and thoughts are shared with the whole group – rather than in sidebar conversations.
- Each Steering Committee member shares responsibility for keeping the meeting on track, and should not hesitate to call for a review of the ground rules.

## Overall Goal

The primary goal of the Communication Plan is to create a common framework for the effective development and delivery of regional communication both throughout the planning process and following the Regional Strategic Plan adoption. Each participating community accepts their role in the course of the planning process to create a working environment that will produce positive and constructive communication. Moreover, the region accepts responsibility for working together to achieve consistent, efficient and high impact regional communication toward the long term visibility and viability of the Regional Strategic Plan.

## Focus on Short and Long Term Communication

In the short term, the Communication Plan will provide an internal structure for the Regional Strategic Plan Steering Committee to operate during the regional planning process. It defines how the Steering Committee will communicate:

# Communication Plan

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- with the County and Professional Consulting Team;
- among its members; and,
- back to each municipality's elected and appointed officials.

Most importantly, it will serve as a guide to managing the involvement and at times conflicting viewpoints of a wide range of stakeholders. Understandably, the four participating municipalities do not all have the same interests, agendas or priorities. The communication system provides a process to account for and respectfully accommodate these differences so that the region can take the resulting recommendations seriously. The process will also ensure that the region is ready to take advantage of all opportunities both while developing the plan and as implementation gets underway.

At the end of the regional planning process, the participating communities will work through a cross-acceptance process with the Lancaster County Planning Commission in support of a plan that is consistent with the guiding principles of the Lancaster County Growth Management Element of Envision. The Communication Plan will function as one of the specific strategies for practical and achievable implementation of the plan.

Over the long term, the Communication Plan will ensure that the region works collaboratively to deliver timely, clear, and consistent communications to its stakeholder audiences. The Steering Committee will establish an organizational framework (e.g. Regional Communication Team) – based on strong leadership – to ensure that the communication activities keep pace with plan implementation and remain focused on the relevant issues of this region of Lancaster County. This entity will play a key role in preparing, delivering and monitoring the effectiveness of internal and external communications. While centralized management of implementing anything on a regional level can prove to be quite difficult, municipal partners will employ the following techniques to address those challenges:

- charge specific organizations/individuals with implementation of specific outcomes;
- dedicate resources – even funding - to implement the plan;
- involve respected and representative community leaders in an inclusive process;

# Communication Plan

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- reconvene the region periodically to monitor implementation progress;
- commission a formal evaluation of the communication plan elements two to five years after adoption.

## Objectives

The following objectives define what the Region wants to achieve through communication.

- Engage all key internal and external audiences impacted by the Regional Strategic Plan.
- Ensure that both internal and external stakeholders understand the goals, objectives and expected outcomes of the Regional Strategic Plan.
- Exploit innovative and existing communication channels and techniques to maximize awareness and understanding of the Regional Strategic Plan.
- Establish a regional organizational system (e.g., Regional Communication Team) to ensure an integrated and consistent approach to sustainable communications within the region and beyond.

## Key Audiences

- Regional Strategic Plan Steering Committee
- Municipal Staff
- Local Elected Officials
- Planning Commissions
- Zoning Hearing Boards
- Public Safety & Emergency Service Providers
- Residents
- Property Owners
- Community Development Organizations (Local / County)
- Economic Development Organizations (Local / County)
- Civic Associations (Local / County)
- Educational Institutions
- Business Sector (Industrial/Commercial) Partners
- Neighboring Municipalities
- County Officials & Agencies
- State Officials & Agencies



# Communication Plan

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- Federal Officials & Agencies

## Key Message

In the short term (i.e., throughout the regional planning process), the key message for external communication will be:

*The Northwest region of Lancaster County is looking to and planning for its future. The communities of Conoy Township, Elizabethtown Borough, Mount Joy Township, and West Donegal Township have joined together to create new opportunities for regional partnership, growth, and prosperity through the development and implementation of a regional strategic plan. The Plan will balance municipal interests, encourage collaborative efforts, and recommend actions to achieve the region's goals. There is great strength in unity, and by coming together through a regional strategic plan, these communities are greatly enhancing their ability to get things done.*

## Key Strategies

The Regional Strategic Plan will benefit from a well-developed communication system that the region is committed to implementing. The following key strategies will enable the participating communities to operate both during the process to create the regional strategy as well as going forward with implementation.

- Develop and commit to implement both Short Term and Long Term communication plans.
- Establish roles, responsibilities, and expectations of Steering Committee Members as well as the Consultant Team as displayed in the Table on page 7.
- Agree upon the approach for dealing with conflicts before they arise. Set up a structure specifically to deal with potential conflicts – such as a Regional Communication Team – so that if a situation does occur, there is a neutral path that individual participants, organizations, and/or the region can take to mitigate the

# Communication Plan

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negative effects. A RCT could use a convener to guide the team. The convener role may be better played by a regional business or nonprofit partner.

## Communication Tools

Methods to carry out the Northwest Region's communications initiatives will include:

- Media Statements / Press Releases
- Annual Regional Meeting/Event
- Annual Reports
- Newsletters
- Website
- Q&A / FAQ Sheets
- Fliers / Brochures
- Background Papers
- Letters / Memos
- Speakers Bureau
- PowerPoint Presentations
- Videos
- Personal Communication

## Specific Actions: Short Term

In the short term, communication activities will focus on developing and managing an internal system for the Regional Strategic Plan Steering Committee to operate during the regional planning process. The Communication Plan defines how the Steering Committee will communicate with the County and Professional Consulting Team, among its members, and back to each municipality's elected and appointed officials. Most importantly, it will serve as a guide to managing the involvement and at times conflicting viewpoints of a wide range of stakeholders.

# Communication Plan

Activity / Message / Method	Audience	Timing / Frequency	Responsibility
Regional Strategy Planning Meetings	Steering Committee	Monthly	Steering Committee / Consultant Team
Between-Meeting Communication (Written and/or Personal Interaction)	Steering Committee	As needed	Consultant Team
Regular Updates on Regional Strategy Planning Progress	Municipal Staff Local Elected Officials Planning Commissions Zoning Hearing Boards	Monthly (and as needed)	Reporting back from Steering Committee representatives
General Public Meeting(s)	All	First Quarter 2008	Steering Committee / Consultant Team
Regional Cooperation Meetings	Steering Committee Neighboring Municipalities	Second Quarter 2008	Steering Committee / Consultant Team
Establish a Regional Communication Team to carry out long term / post-adoption communication plans.	n/a	First Quarter 2008	Steering Committee / Facilitated by Consultant Team
Regional Strategy Planning Process General Public Updates (i.e., Press Releases, Newsletter Updates, Posting updates to existing community websites)	Residents Property Owners Community Development Organizations Economic Development Organizations	Quarterly	Regional Communication Team

# Communication Plan

	Civic Associations Educational Institutions Business Sector (Industrial/Commercial) Partners Public Safety & Emergency Service Providers		
Regional Strategy Planning Process Updates to Neighboring Municipalities (monthly meeting agendas, meeting summaries, other pertinent information)	East Donegal Township Marietta Borough Mount Joy Borough	Monthly (and as needed)	Consultant Team

## Specific Actions: Long Term

Over the long term, the Communication Plan will ensure that the region works collaboratively to deliver timely, clear, and consistent communications to its stakeholder audiences. The Steering Committee will establish an organizational framework (e.g. Regional Communication Team) – based on strong leadership and accountability – to ensure that the communication activities keep pace with plan implementation and remain focused on the relevant issues of this region of Lancaster County.

## Evaluation and Improvement

The Northwest Region will measure the success of the communications plan by the extent to which they achieve their communication and implementation objectives. Ongoing evaluation and review will ensure that the communications activities keep pace with the implementation of the Regional Strategic Plan and remain focused on the relevant regional issues. The Regional Communication Team will play an integral role in monitoring the effectiveness of both intermunicipal and wider regional communications.