

IV. FUTURE GROWTH AND LAND DEVELOPMENT

A. Identification of Municipal and County Planning Documents

1. Identification of Land Use Plans or Zoning Maps.

Berks County Comprehensive Plan

In accordance with the preface to the Berks County Comprehensive Plan, adopted April 24, 2003,

“The purpose of the Berks County Comprehensive Plan Revision, known as Berks Vision 2020, is to revise and update certain aspects of the Comprehensive Plan of 1991, and subsequent Plan documents. It acts as a guide to growth and development and assists the Berks County Planning Commission in evaluating various development proposals and requests for financial assistance by local agencies to County, State, and federal agencies. This Plan is a general guide and does not reflect in detail the location for all future development nor the precise boundary of such development. This revision is not a fixed nor rigid document, but will be modified by the Commission when changes in the development of Berks County indicate the need to alter the Plan. Berks vision 2020, unless otherwise noted, completely supercedes the Comprehensive Plan revision of 1991. The target year of this Plan is 2020.”

In Chapter III, “Future Land Use”, Section 4, Subsection A addresses sewer and water facilities. Amity’s land development plans are generally in conformance with the County’s comprehensive plan and map. Most of the area currently sewered is either in Existing Developed Areas or Future Growth Areas as identified in the Comprehensive Plan.

The Plan shows areas that are appropriate for limited development, which generally corresponds to the corridor surrounding most of the existing or future growth area. This is mostly where development has occurred in Amity. Some limited sewer expansion has occurred in areas designed as “Agricultural Preservation” and “Environmentally Sensitive.” This is consistent with the Plan’s statement:

The Plan recognizes that certain sewer lines may have to be extended to give relief to areas with malfunctioning on-lot systems.

Those areas developed were contiguous with existing sewer development, and generally had “moderate” to “severe” limitations for on-lot sewage disposal due to steep slopes or depth to bedrock.

The Vision 2020 Plan establishes a number of land uses, some of which are “overlay” districts, and therefore can occur in any district, and cross district boundaries. Key elements of the Plan are:

Agricultural Preservation – The area looks for large (minimum 500 acres) contiguous land areas with suitable soils predominately devoted to agricultural activity. They note that “areas should be reserved primarily for agricultural purposes, and are inappropriate for infrastructure extension.” The areas designated as AP by the County are currently in Amity’s “RC-Rural Conservation” district.

Growth Areas – Lands are contiguous to existing developed areas where they can maximize existing investment in public sewer and water systems, transportation systems, and other public facilities and services or where public sewer is anticipated in the near future for health and safety reasons. A full range of public infrastructure services including sewer, water,

highways and other transportation modes, police and fire protections, public schools, parks, open space and other services should be adequately planned and provided as needed to accommodate the growth as it occurs. Those areas in Amity are in the MDR district, and are either currently served by sewer, or are adjacent to developments with sewer.

Rural Conservation – These areas are appropriate for forestry, small-scale agriculture, and low density “suitably sited” development. This generally represents land zoned as LDR in Amity. The county recommends density of less than 1 unit/acre; Amity requires a minimum of 80,000 sq. ft. lot size (about 1.8 acres)

Areas designated as “Environmental Hazard” are the floodplains and drainage basins. Steep slopes occur in the Monocacy Hill area, which Amity has precluded from development and from extension of sewer.

Amity Township Comprehensive Plan:

Amity Township first prepared a Comprehensive Plan in 1967. That Plan, however, was never adopted. Amity undertook a two-year planning effort that resulted in a plan that was adopted in 1990. However, this Plan is no longer in effect.

Amity Township became involved with developing a Joint Comprehensive Plan with neighboring Exeter Township and the Borough of St. Lawrence. This is the most current Plan.

The Joint Comprehensive Plan establishes a number of goals specific to land use, housing, public water, and public sanitary sewer facilities.

- Manage growth in order to preserve the natural environment and remaining rural character and agricultural areas.
- Designate growth areas, which are logical extensions of existing concentrations of development, have appropriate access, can be efficiently served by the circulation system, and can be efficiently served by public sewer and water systems.

The Comprehensive Plan discusses the following relative to public sewer and public water:

The Act 537 Sewage Facilities Plan was updated to expand the sewer service area throughout the southeastern portion of the Township, along the Route 422 corridor, and in portions of the north central portion of the township. In addition, sewer lines could be extended to southwest portions of the Township to serve existing units with malfunctioning sewage disposal systems and cluster development in rural Conservation areas with a low net density (two acres per unit). The Plan called for an expansion of the sewage treatment plant, increasing the treatment capacity by 37% to allow for serving more than 2,600 additional sewer units (EDU's).

The Comprehensive Plan goes on to say:

The availability of public sanitary sewer facilities is important, and the use of such facilities should be encouraged when consistent with the Future Land Use Plan, because of the general unsuitability of soils in St. Lawrence, Exeter and Amity area for on-site sewage disposal. These soils are considered unsuitable for on-site sewage disposal based on the United States Department of Agriculture National Resources Conservation Service rating of limitations for septic tank absorption fields. It should be noted that limestone soils are considered as a hazard for on-site sewage disposal because of the potential of ground water contamination.

Public Water Supply

The Mt. Penn Borough Municipal Authority serves the Borough of St. Lawrence as well as Mt. Penn Borough, Lower Alsace Township, and a small portion of Exeter Township. Community wells are located between Hill Road and Spook Lane and between Friedensburg Road and Butter Lane in Lower Alsace Township. The Mt. Penn Borough Municipal Authority also maintains water storage facilities. These facilities are located adjacent and in close proximity to the Authority's wells between Hill Road and Spook Lane.

Most of Exeter Township and Amity Township are served by Pennsylvania-American Water Company.

Zoning Ordinances:

The Amity Township Zoning Ordinance was originally developed in February of 1957. It went through a number of amendments up until December 1991 when the full ordinance was amended in its entirety. Since that time the Ordinance has undergone several more amendments with the most recent being August of 2008.

In the Ordinance, the following zoning districts have been established:

RC	Rural Conservation District
LDR	Low Density Residential District
MDR	Medium Density Residential District
MHP	Mobile Home Park District
HC	Highway Commercial District
SCC	Shopping Center Commercial District
LI/O	Light Industrial District/Office

LI/O (Future Proposed) Light Industrial/Office District that is proposed in the area of Limekiln Road and Amity Park Road.

Refer to the zoning map found in APPENDIX R which shows the location of these zoning districts.

- Rural Conservation District

The purpose of the Rural Conservation District is to encourage woodland, agricultural and general open space conservation by preserving natural features and environmentally sensitive lands such as forest, water sheds and water courses while perpetuating the rural atmosphere, open space and scenic landscape of the township. A significant portion of the RC District is classified as having severe limitations to on-lot sewage disposal due to flooding, a high water table and/or steep slopes. Residential and commercial uses are encouraged provided that sufficient space is available for on-lot sewage disposal which will not create any menace to public health, and natural features are not unduly disturbed.

- Low Density Residential District

The purpose of the Low Density Residential District is to encourage moderate residential development, to retain the rural and suburban characteristics of the Township, and to serve as a transition between areas of variable densities. A significant portion of the LDR District is classified as having slight to severe limitations to on-lot sewage disposal due to flooding and a high water table. Development of these areas will be further regulated by the Environmental Protection Overlay Districts.

- Medium Density Residential District

The purpose of the Medium Density residential District is to maintain and promote residential growth in areas of the Township which have the potential for being serviced by public sewage and/or water facilities. The MDR District contains the least amount of physical limitations for development within the Township and is most suitable to accommodate the highest permissible residential densities.

- Mobile Home Park District

The purpose of the Mobile Home Park District is to provide growth areas within the Township for mobile home parks. These areas contain moderate limitation for development and have the potential for being serviced by public or community water and sewage facilities.

- Highway Commercial District

The purpose of the Highway Commercial District is to provide an area for a generalized variety of highway commercial land uses which service the basic needs of surrounding residential communities. The HC District is concentrated around existing commercial land uses that are located along arterial highways within the township. Development, which occurs, shall be planned to accomplish safe development of highway frontage and to protect major highways as thoroughfares. (Ordinance 130, December 9, 1991, Section 405.1).

- Shopping Center Commercial District

The purpose of the Shopping Center District is to provide an area for small, unified commercial shopping centers which services and provides for the basic needs of the Township. The SCC District is concentrated around existing

compatible commercial land uses that are located along arterial highways within the township. Development, which occurs, shall be planned to accomplish safe development of highway frontage and to protect major highways as thoroughfares.

- Light Industrial

The purpose of the Light Industrial District is to provide an area for a generalization of light industrial land uses which services and provides for the basic needs of the surrounding residential communities of the Township. The Light Industrial District is located and centralized in an area which will adequately accommodate industrial growth provided that each existing and proposed land use does not affect the public health, safety and general welfare of the adjacent residential areas.

TABLE 1
LOT SIZE REGULATIONS

SYMBOL	DISTRICT	MINIMUM LOT AREA	COMMENT
RC	Rural Conservation	80,000 sq. ft.	
LDR	Low Density Residential	80,000 sq. ft.	
MDR	Medium Density Residential	80,000 sq. ft.	On Lot Sewage and Private Water Facilities
		30,000 sq. ft.	Public or Community Sewage Facilities; Private Water
		12,000 sq. ft.	Public or Community Sewage Facilities; Public Water
MHP	Mobile Home Park	None	
HC	Highway Commercial	80,000 sq. ft.	On Lot Sewage and Private Water Facilities
		30,000 sq. ft.	Public or Community Sewage Facilities; Private Water
		12,000 sq. ft.	Public or Community Sewage Facilities; Public Water
SCC	Shopping Center Commercial	3 acres	
LI/O	Light Industrial/Office	3 acres	

Subdivision and Land Development Ordinance:

The Amity Township subdivision and land development ordinance was adopted November of 1992. The purpose of this ordinance is “to protect, promote, and create conditions favorable to health, safety, convenience, and general welfare of the citizens of Amity Township by:

- a. Ensuring that sites will be suitable for building purposes, human habitation, commercial and industrial operations, and other uses for which land may be used.
- b. Providing for the orderly, efficient, integrated and harmonious development of land within the Township.
- c. Effectively coordinating the planning, design and construction of proposed transportation and community facilities with existing facilities in the Township.
- d. Ensuring the conformance of subdivision and land development plans with the public improvement plans and programs of the Township, County and/or State.
- e. Providing for the efficient and orderly extension of community facilities and services.
- f. Ensuring that all subdivision and land development applications are consistent with the goals, objectives and policies of the Amity Township Comprehensive Plan and the Amity Township Zoning Ordinance (see Chapter XXXII of the Township Code of Ordinances).
- g. Providing for adequate open space for traffic, recreation, light and air, and for proper distribution of population.
- h. Assuring the equitable and just processing of subdivision and land development plans by providing uniform procedures and standards for the observance by both the applicant and Township officials.

- i. Encouraging and promoting flexibility in subdivision and land development design when it results in an improvement to the environment and overall conditions of the site.
 - j. Creating conditions favorable to the health, safety and general welfare of the residents of Amity Township.
2. Identifying zoning regulations that establish lot sizes

Part 4 of the most current Amity Township Zoning Ordinance establishes lot sizes for the above referenced zoning districts. Refer to Table 1 in Section IV.A.1. for this information.

3. Limitations and Plans related in Floodplain and Stormwater Management

Floodplain Management

Amity Township has a Floodplain Ordinance, adopted December 1, 1977, that controls all development within the floodplain areas of the Township. In addition, Section 502 of the Zoning Ordinance establishes a “Floodplain Overlay District” to further protect the floodplain.

Stormwater Management

Amity Township has a stormwater management ordinance that was enacted in March 2008. This ordinance is very comprehensive and covers the requirements set forth in the MS4 program. Implementation of the selected technical alternative will require compliance with this ordinance. For a selected design alternative, stormwater management will be

addressed so as to minimize impacts of new facilities that might cause accelerated erosion and impacts on natural resources.

Compliance will be with Township Ordinance 243, dated March 19, 2008.

Special Protection

The Amity Township Sewage Treatment Plant discharges to the Schuylkill River, and operates within the parameters of its NPDES permit. The Schuylkill River is not a special protection waterway. No changes to the NPDES permit are anticipated as a result of the needs assessment done as part of this revision. However, recognizing the plant’s current capacity limitations, the Township is investigating improvements to the plant concurrently with this Plan.

B. Describe Future Growth and Development

1. Areas With Existing Development or Plotted Subdivisions

Upon completion of the Township’s current Act 537 Plan, there were nearly 109 subdivisions either complete, nearly complete or in-progress. Since that time, most of these subdivisions have been built out. However, subdivision and land development activity has continued.

No.*	DEVELOPMENT/SUBDIVISION	REMAINING EDUs (Reserved but not yet connected)
1A	Mauger	90
2A	Woodsedge	86
3A	Faust	2
4A	Glenwood	11
5A	Highmeadows Ph. 1*	
6A	Highmeadows Ph. 2*	86
7A	Highmeadows Ph. 3*	
8A	Monocacy Tract	163

9A	Flately	203
10A	Dreslin	23
11A	DFT	7
12A	Arbour Green	64
13A	Kramer	13
14A	Flexible Deve	25
15A	Granam	50
16A	Cone	8
17A	Gokey	5
18A	Pond View	9
	TOTAL	845 EDUs

*Refer to the Plan found in APPENDIX S that shows the location of the existing subdivisions along with above referenced in-progress or proposed subdivisions. NOTE: Highmeadows Phases 1, 2, and 3 have a total of 86 EDUs reserved but not yet connected.

2. Land Use Designations; Including Residential, Commercial, and Industrial Areas

Amity Township land use is generally broken down into the following categories.

- a. Residential
- b. Rural
- c. Agricultural
- d. Commercial
- e. Industrial/Office
- f. Light Industrial/Office (Future Proposed)
- g. Mobile Home Park

Refer to Section IV.A.1. of this Plan for specific references to the zoning associated with these land use designations.

Within the bounds of these land use designations, Amity Township has established public sewer service areas. Refer to the map found in APPENDIX T. Proposed development within these areas, along with specific needs areas, are to receive public sewer service with wastewater being collected and conveyed to the Township's wastewater treatment plant.

3. Future Growth Areas, Population and EDU Projections

Local population, housing and employment trends illustrate how an area's residents, housing stock and economy are changing over time. These trends help determine planning and zoning policies such as how much land to set aside for commerce, industry and different types of residential uses. Amity Township has been growing at a rate substantially greater than Berks County overall. This trend has been true since the 1950's.

a. Total Population and Projected Flow:

Amity Township's population was 8,867 as of the 2000 U.S. Census, an increase of 2,433 from 1990, or 37.8%. Berks County overall grew by just over 11% during that same period.

TOTAL POPULATION
Amity Township and Berks County
1970 -2000

YEAR	AMITY TOWNSHIP			BERKS COUNTY		
	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change
1970	4,718			296,382		
1980	5,883	1,165	24.7%	312,509	16,127	5.4%
1990	6,434	551	9.4%	336,523	24,014	7.7%
2000	8,867	2,433	37.8%	373,636	37,133	11.0%

Source: 2000 U.S. Census

Amity also experienced higher growth than its surrounding municipalities. Population density continues to increase in Amity

Township, as in Berks County as a whole, nearly doubling in the past 30 years.

At the same time, the number of persons per household decreased during the 1980's, and has held steady during the 1990's. This reflects the housing type in the township, which is overwhelmingly single family detached (100% of approved subdivision plans for 2001, 80% for 2000).

In accordance with the Joint Municipal Comprehensive Plan for St. Lawrence Borough, Exeter Township and Amity Township:

**TOTAL POPULATION
ST. LAWRENCE BOROUGH, EXETER TOWNSHIP,
AMITY TOWNSHIP, BERKS COUNTY**

YEAR	St. Lawrence Borough			Exeter Township			Amity Township			Exeter Township		
	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change
1980	1,376			14,419			5,883			312,497		
1990	1,542	166	12.0%	17,260	2,841	19.7%	6,434	551	9.3%	336,523	24,014	7.6%
2000	1,812	270	17.5%	21,161	3,901	22.6%	8,867	2,433	37.8%	373,638	37,115	11.0%

Source: U.S. Census

The Amity Township Economic Advisory Council's Economic Development Plan dated October 2008 indicates a 2007 population of 14,855. This is a 67 percent increase in population since the 2000 census numbers were released.

Using the same population growth techniques as detailed in the Joint Municipal Comprehensive Plan, two projections techniques have been used to provide a range of possible population outcomes in the Township. The low range projections use the average rate of growth per decade for the Township from 1990 to 2000. This coincides with

the “high range” growth rate in the multi-municipal comprehensive plan. The high range projections use the average rate of growth over the course of the seven-year period between 2000 and 2007.

POPULATION PROJECTIONS 2000 –2030
USING PAST POPULATION GROWTH RATES

	2000	2010	2020	2030
Low Range	8,867	10,950	13,040	15,125
High Range	8,867	17,421	25,975	34,529
EDU Basis	8,867	14,855	22,523	----

Upon examining the ranges of projected population projections, it appears that the high range may be unrealistic given the extent to which there is rural conservation within the Township. Therefore, a third projection methodology shall be utilized. This will be based on the projected number of equivalent dwellings using a population of 14,855 as the base figure. From these EDU figures, we will be able to project future public wastewater needs.

TABLE 2

Description	EDUs	Acres	Flow (GPD)*	Time Frame
Planned Development (Planning Approved) (capacity reserved but not yet Connected)	845		193,505	0-5 years
Potential Development (Open Parcels in public sewer service area) [Includes Amity L/I and Amity Int./Failing OLDS] APPENDIX U	2,027**		830,081	5-10 years
Future Pretreated Commercial/Industrial			120,000	5-10 years
SUB-TOTALS	2,872		1,143,586	

Based on the Township's factor of 2.67 people per dwelling unit, the total population increase through 2020 would be:

$$14,855 + [(2,027+845) \times 2.67] = 22,523$$

* 229 GPD/EDU

** See Breakdown on Table 3. (Includes Leaf Creek Farm; Designation ZZ)

Per correspondence received from each of the contributing municipalities (APPENDIX V) the respective wastewater needs at the Amity Township WWTP is: (Beyond their current reserved capacity)

Oley Township:	4,200 gpd
Exeter Township	0 gpd
Union Township	0 gpd
Earl Township	0 gpd
Douglass Township	<u>0 gpd</u>
SUB-TOTAL	4,200 gpd
TOTAL PROJECTED NEEDS: (0-10 years)	
Township Needs	1,143,586 gpd (from Table 3)
Contributing Municipal Needs	<u>4,200 gpd</u>
TOTAL	1,147,786 gpd

b. Treatment Capacity Required:

- Calculation of beginning of 2009 Available Reserve Capacity

The Amity Wastewater Treatment Facility is rated at 2.20 MGD capacity. To determine available reserve capacity PA DEP takes the annual 3-month maximum average flow from the rated capacity. In 2009 the three highest consecutive months were October, November and December at an average flow of 1,378,000 GPD. Therefore, 2,200,000 GPD – 1,378,000 GPD = 822,000 GPD of reserve capacity. One EDU is equal to 229 GPD in accordance with the Tap-in-fee calculation.

Current Reserve Capacities being held are as follows:

Amity reserved but not connected (845 EDUs)	193,505 GPD
Union Township unused reserve	158,010 GPD
Reserve Capacity (158,010 GPD) *	
Douglass Township unused reserve	163,584 GPD
Reserve Capacity (210,000 GPD)	
Earl Township unused reserve	29,767 GPD
Reserve Capacity (52,500 GPD)	
Monocacy Creek Interceptor BelAir (74 EDUs)	<u>17,000 GPD</u>
Total	561,866 GPD

* Union Township Reserve Capacity has been revised and is now 158,010 GPD.

Remaining Reserve Capacity is therefore:

822,000 GPD
- 561,866 GPD
260,134 GPD

Treatment expansion needs:

Reserve capacity at the Amity Township WWTP, minus the committed reserve capacity, minus the projected needs (0-10 years; See Table 3) is equal to the amount by which the Township's WWTP will need to be expanded to meet future treatment needs.

In other words:

$$822,000 \text{ GPD} - 561,866 \text{ GPD} - (1,147,786 \text{ GPD} - 193,505^* \text{ GPD}) = -694,147 \text{ GPD}.$$

Therefore, an expanded Amity Township WWTP will need to be able to treat an additional 694,147 GPD. For the purposes of planning, this will be considered 700,000 GPD.

Refer to Appendix W which includes graphs and tables from the most current Chapter 94 Report.

* Accounted for as part of "Current Reserve Capacity".

Therefore it needs to be subtracted back out of the Total Need of 1,147,786 GPD.