



# COMPREHENSIVE PLAN 2009



Joint Municipal Planning Committee  
Upper Augusta Township  
Snydertown Borough  
Northumberland County, PA



TOWNSHIP OF UPPER AUGUSTA  
NORTHUMBERLAND COUNTY, PENNSYLVANIA

RESOLUTION NO. 2009- 4

WHEREAS, the Board of Supervisors of Upper Augusta Township, located in Northumberland County, Pennsylvania, constitutes the chief governing body of Upper Augusta Township; and

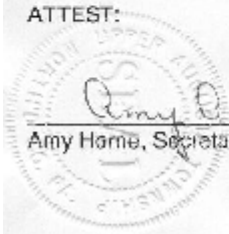
WHEREAS, the Board of Supervisors deems it necessary to adopt a new Comprehensive Plan for the Township of Upper Augusta, a true and correct copy of the Comprehensive Plan is attached hereto, made a part hereof, and designated as Exhibit "A"; and

WHEREAS, the Board of Supervisors followed the procedures set forth in Section 10302 of the Municipalities Planning Code in adopting said Plan; and

WHEREAS, on March 4, 2009, the Board of Supervisors held a public hearing pursuant to public notice for the purpose of adopting the Comprehensive Plan; and

NOW, THEREFORE, BE IT RESOLVED That the Board of Supervisors of Upper Augusta Township hereby adopt the above-referenced Plan in its entirety, by unanimous vote (3-0).

ATTEST:

  
Amy D. Horne  
Amy Horne, Secretary

UPPER AUGUSTA TOWNSHIP  
BOARD OF SUPERVISORS

BY: Todd Wetzel  
Todd Wetzel, Chairman

Rebecca Ray  
Rebecca Ray - Supervisor

Edward Markowski  
Edward Markowski - Supervisor

DATED: March 16, 2009

SNYDERTOWN BOROUGH  
NORTHUMBERLAND COUNTY, PENNSYLVANIA  
RESOLUTION

WHEREAS, the Borough of Snyderstown Council, located in Northumberland County, Pennsylvania constitutes the chief Governing Body of Snyderstown Borough; and

WHEREAS, the Snyderstown Borough Council deems it necessary to adopt a new Comprehensive Plan for the Borough of Snyderstown, a copy of the Comprehensive Plan is attached hereto, made a part hereof, and designated as Exhibit "A"; and

WHEREAS, the Snyderstown Borough Council followed the procedures set forth in Section 10302 of the Municipalities Planning Code in adopting said Plan; and

WHEREAS, on March 4, 2009 members of the Snyderstown Borough Council held a public hearing at the Upper Augusta Township Municipal Building, pursuant to public notice for the purpose of adopting the Comprehensive Plan; and

WHEREAS, in attendance representing the Borough of Snyderstown were the following members of the Governing Body:

William E. Kerstetter	- President Borough Council
Brian Scandle	- Councilman
Robert Hetzendorf	- Councilman
Robert Bartholomew	- Councilman

NOW, THEREFORE, BE IT RESOLVED That the members of the Governing Body of Snyderstown Borough Council at the time and place adopted the above-referenced Comprehensive Plan in its entirety, by unanimous vote of quorum in attendance.

ATTEST:

Betty Cardell  
Betty Cardell,  
Borough Secretary

BOROUGH OF SNYDERTOWN

By William E. Kerstetter  
William E. Kerstetter,  
President

Dated: March 4, 2009



## **ACKNOWLEDGEMENTS**

### **TOWNSHIP SUPERVISORS**

Todd N. Wetzel, Chairman  
Edward Markowski, Jr  
Rebecca A. Ray

### **SNYDERTOWN BOROUGH**

William Kerstetter, President  
Brian Scandle, Vice President  
Robert Hetzendorf  
Robert Bartholomew  
Charles Dalpiaz  
Carl Frederick  
Larry Wary

### **JOINT MUNICIPAL COMPREHENSIVE PLAN COMMITTEE**

#### **Upper Augusta Township**

John A. Malcolm, Jr.  
Todd N. Wetzel  
Michael Gillespie

#### **Snydertown Borough**

Henrietta Yarnell.  
Brian Scandle  
Patricia Hetzendorf

#### **Upper Augusta Township Solicitor**

Attorney James Bathgate

#### **Snydertown Borough Solicitor**

Attorney Robert Walsh



SNYDERTOWN BOROUGH / UPPER AUGUSTA TOWNSHIP  
COMPREHENSIVE PLAN  
2008

**TABLE OF CONTENTS**

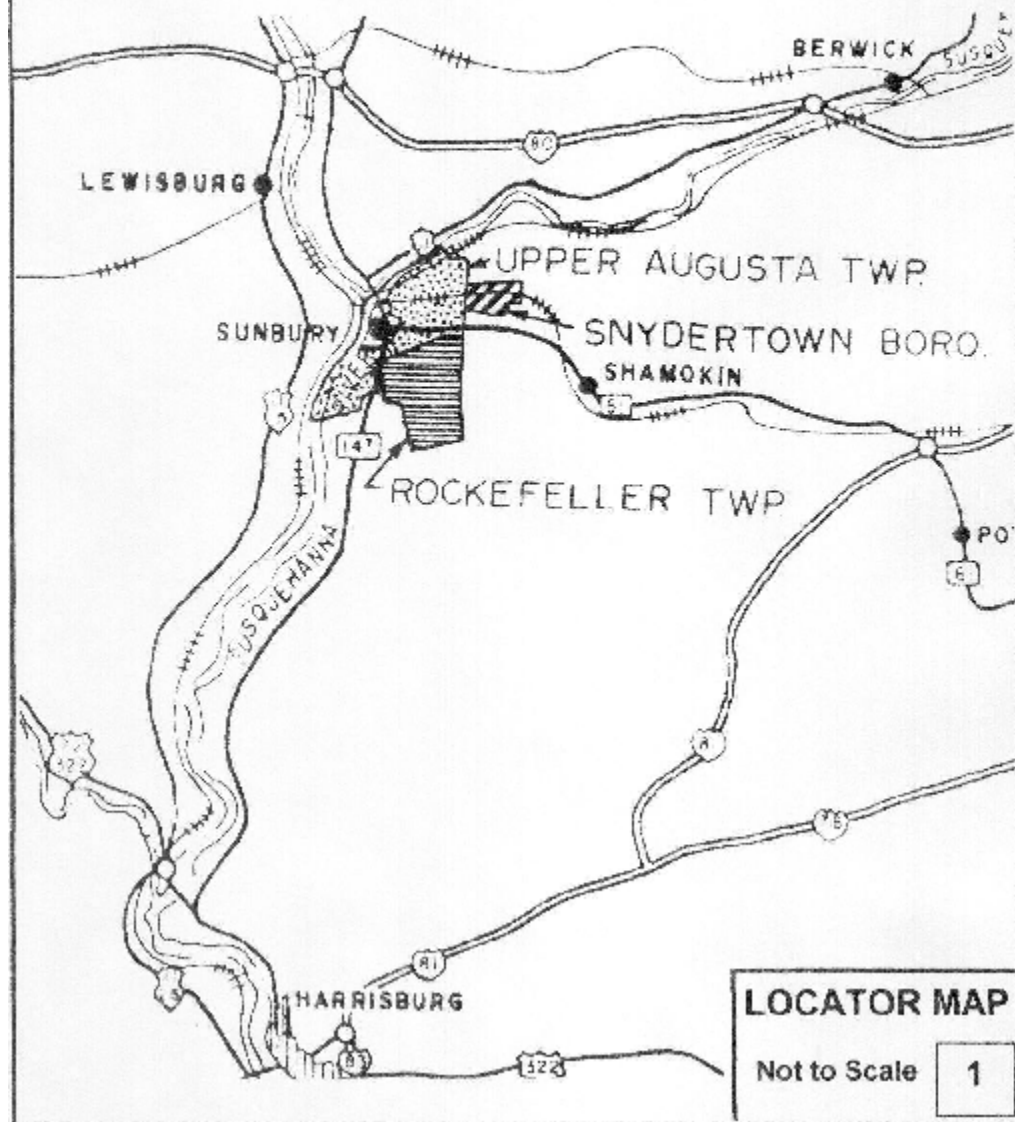
	Page No.
Locator Map	8
Introduction	
Need for a Plan, Definition, Elements	9
Steps of Planning Process	10
Surveys and Analyses	
Physiographic, Climatologic and Environmental	13
Economic Conditions and Historical Factors/Issues	51
Population and Housing Profiles	57
Existing Land Use and Zoning Districts	67
Regional Transportation Systems	71
Community Facilities and Utilities Profile	76
Policy Determinations and Recommendations	
Goals and Objectives	80
Comprehensive Plan	
Future Land Use	82
Agricultural / Forestry Areas	85
Open Space and Conservation Areas	86
Residential Areas	87
Commercial Areas	89
Natural and Historic Resource Protected Areas	90
Community Facilities and Utilities Plan	91
Transportation Plan	96
Implementation	
Codes, Ordinances and Regulations	101
Bibliography	
Appendices	

COMPREHENSIVE PLANNING STUDY

SNYDERTOWN BOROUGH  
UPPER AUGUSTA TOWNSHIP

NOT TO SCALE

MAY, 2007



## 1. INTRODUCTION

### **THE NEED FOR A PLAN**

The character of a comprehensive plan must be fully understood. It is not a map of the future, but rather a statement of policy to be used by a community to achieve a desired future physical development pattern. As community life becomes more complex, land and buildings are put to an ever increasing quantity and variety of uses. Although the total effect of these changes is not always immediately or readily apparent, every change or increase in land use in some way, however small, affects both the residents of a single community as well as the community at large.

Equally important is the economic dependence of the communities upon one another for housing, employment and commercial services. Within this economic dependence is also a need for sharing public facilities – schools, utilities, roads, etc. Without cooperation, there is no guarantee that all communities will share proportionately the benefits of public facilities or that such facilities can in fact be provided.

Through planning, the municipalities of the Susquehanna Region can determine the extent of their dependence upon one another and subsequently provide the necessary facilities to serve each community within the Region.

### **THE DEFINITION OF A COMPREHENSIVE PLAN**

T.J. Kent, Jr., in The Urban General Plan, states: “The (comprehensive)...plan is the official statement of a municipal legislative body which sets forth its major policies concerning desirable future physical development; the published...(comprehensive)...plan document must include a single, unified general physical design for the community, and it must attempt to clarify the relationships between physical development policies and social and economic goals...”

### **THE ESSENTIAL ELEMENTS OF A COMPREHENSIVE PLAN**

Three elements are generally recognized as essential to a comprehensive plan. They are defined by the U.S. Department of Housing and Urban Development as follows:

The **Land Use Plan**...determines future community land use, showing by location and extent, areas to be used for residential, commercial, industrial and public purposes.

The **Thoroughfare Plan**...provides a system of major streets, existing and proposed, distinguishing between limited access, primary, and secondary thoroughfares, and relating major thoroughfares to the road network of the surrounding area.

The **Community Facilities Plan**...shows the location, type, capacity, and area served, of present and proposed community facilities including recreation areas, schools, libraries, and other public buildings. It may also show related public utilities and services.

## **STEPS OF THE PLANNING PROCESS**

There are four major steps required in the process of producing a plan: (1) survey and analysis of the existing conditions and trends, (2) policy determination or the establishment of objectives and standards, (3) synthesis of existing conditions and objectives into comprehensive plan proposals and (4) implementing the proposals of the comprehensive plan.

1. **Survey and Analysis**

The initial step in any planning process is to objectively review a wide range of existing conditions. The basic areas of investigation in this study are economic conditions, community facilities and utilities. Together these reports enabled the Commission to review the facts and draw important conclusions concerning the social, economic and physical factors which have determined the existing character of the Region and which control the possibilities of future development. In other words, the survey and analysis will provide information upon which both policies and plan will be based.

2. **Policy Determination.**

The identification of the Region's role within Northumberland County and then determining the basic course of action to pursue, consistent with the identified role, regarding the physical character and development of the Region are the elements of policy determination. In many ways, policy determination is the most important of the four planning steps. As the decision-making step, policy determination becomes the sole responsibility of the Region's planning and legislative representatives. Whereas the survey and analysis and comprehensive plan stages can be accomplished through professional planning assistance, there is no way in which policy can be determined other than by a community itself. Moreover, without a meaningful set of objectives and general community acceptance of these objectives, any subsequent plans and action have little meaning.

3. **The Comprehensive Plan**

A comprehensive plan synthesizes the information gained during the survey and analysis with the policies established in the policy determination step, making specific proposals which best carry out the plan. In the Susquehanna Region, the uses of the plan are several.

First and foremost, the comprehensive plan sets forth a unified group of proposals for the physical development of the Region for the use of planning commissions and governing bodies. Second, after adoption, the plan will enable each governing body, each planning commission and all citizens to review any current issued and proposals against a clear picture of what has been decided as the most desirable plan for the future development of the Region. Third, through the comprehensive plan, the Region, as well as each municipality, will be able to present a statement of its long-range development proposals to all outside persons concerned with the Region's development. Finally, the plan will help educate all who read it regarding existing conditions, problems and opportunities, projected future trends and the policy of government with respect to physical development.

4. **Implementation**

The final and critical step is the process of carrying out the policies and proposals contained in the plan. Unfortunately, implementation cannot be accomplished by a single act or in a single document. It is a continuous series of individual private actions which must be monitored by responsible public agencies and of timely public action. The success of such efforts will require the cooperation of all the Region's residents and the coordinated efforts of the Region's public officials and agencies.

### **PHASE III – Comprehensive Plan Development**

A proposed Comprehensive Plan for the participating municipalities is prepared with the elements as listed below. Once prepared, the plan will be submitted to the governing bodies of each of the participating municipalities. The Governing bodies will then review the proposed Comprehensive Plan in its entirety, make comments and suggestions for changes, additions, deletions, etc. and return the Comprehensive Plan to the joint Municipal Planning Committee to discuss the comments and suggestions and make adjustments as deemed necessary with the concurrence of all participating municipalities. The proposed final plan is then re-submitted to the governing bodies of the participating municipalities for their review and public comment at (a) scheduled public meeting(s) and through specified communications methods to the governing bodies. The proposed final plan with the public and municipal governing body comments is then returned to the Joint Planning Committee for their review and further action prior to being forwarded to the participating municipal governing bodies for their final action.

#### **A. Future Land Use Plan**

Based on the information and data gathered on the communities' inventory and analysis developed by the participating municipal planning bodies and upon community goals and objectives derived from public participation and the municipalities' governing officials, a proposed comprehensive plan for future land use is developed. The proposed Future Land Use Plan will show the location, amount and intensity of development proposed for future agricultural, residential, commercial, industrial, utility, public and open space uses. Areas that are unsuitable for development because of environmental constraints and/or otherwise reserved for specific purposes will also be identified. The proposed Future Land Use Plan will be prepared utilizing appropriate text, tables, charts and maps.

#### **B. Community Facilities and Utilities Plan**

A Plan for community facilities and utilities will be prepared discussing future school(s), park and recreation, administration and other major public facility needs. A discussion of possible addition and/or extension of utility services will also be prepared. The Community Facility and Utilities Plan will relate to and make recommendations on each item investigated during the research, surveys and analysis phase.

#### **C. Transportation Plan**

The Transportation Plan will correlate the Future Land Use Plan and the Community Facilities and Utilities Plan. Primary emphasis will be placed on ensuring that future development does not adversely impact the existing transportation network. Future potential changes in transportation methods forced by raised prices of conventional fuels and environmental concerns will be discussed. The need for traffic improvements, new relief routes, roadway widening, parking restrictions, control of access will also be discussed. Proposals for the elimination of hazardous and/or potentially hazardous conditions will be presented.

#### **D. Housing Plan**

The discussion of current housing assets in the participating communities couples with projected population changes and the corresponding need for new (and/or upgraded) and additional types of housing units will serve as the basis for the Housing Plan element. This plan element will address ways to meet future housing needs.

E. Relationship to Other Plans

The relationship of development proposed by the Comprehensive Plan to existing and proposed development in adjacent non-participating municipalities will be discussed taking into account those municipalities' Comprehensive Plans where such exist. Discussion will also be presented on the relationship between the Joint Municipal Comprehensive Plan and the Northumberland County Comprehensive Plan and other Commonwealth regulatory laws and agencies that impact the Plan.

F. Interrelationship of Plan Components

Each element of the Comprehensive Plan will be reviewed and analyzed to ensure that all internal Plan components are as clear, compatible and unambiguous as possible where Plan elements interact.



## SURVEYS AND ANALYSES

## PHYSIOGRAPHY

### TOPOGRAPHY

Upper Augusta Township, Rockefeller Township and Snyderstown Borough lie within the Ridge and Valley Province of the Appalachian Highlands. This is a broad band of long narrow mountain ridges and intermontaine valleys which cross the State from the south-central border to the northeast corner.

The Region is located east and southeast of the intersection of the West and North Branches of the Susquehanna River. Elevations range from a low of 450 feet along the river to a maximum of 1,200 feet in the south-eastern part of Rockefeller Township.

Map 6 is a graphic display of areas having similar slope characteristics. It was constructed by using the contour lines on the U.S. Geologic Survey map of the Susquehanna Region. The slope categories have the following characteristics.

0-5% slopes are nearly level and considered suitable for almost all types of industrial, commercial, institutional or residential development; except land that is excessively flat may not be well drained and consequently may be subject to flooding.

5-10% slopes are considered gentle slopes and good for medium density residential development (4-6 homes per acre), permitting good drainage and an interesting and variable landscape without the severe problems of steeper slopes. The use of land in this category for commercial or industrial usage is limited to small sites without considerable land preparation.

10-15% slopes are moderate slopes generally suitable only for low density residential development (3 or less homes per acre) and then only with care in construction of roads and structures and the installation of septic systems.

Greater than 15% slopes can only be adapted for use by individually designed homes and generally at high site preparation costs; most slopes in this category should be left in their natural state.



Table 4.1 indicates the approximate percent of land area of each municipality within each slope category.

Table 4.1  
AREA BY PERCENT OF SLOPE – SUSQUEHANNA REGION: 1970

Municipality	Percent of Slope							
	0-5%		6-10%		11-15%		16% +	
	Acres	%	Acres	%	Acres	%	Acres	%
Upper Augusta								
Township	3,574	29	1,451	11	1,953	16	5,438	44
Rockefeller								
Township	5,867	46	1,253	10	2,001	15	3,679	29
Snydertown								
Borough	1,050	47	209	10	275	12	701	31

Source: Buchart-Horn Estimate

## **SOILS**

For planning purposes, soil information indicates the general suitability of land for subsurface sewage disposal systems and the proper siting of buildings. This information is mapped to show land areas as suitable or practical for construction. It must be understood that soils are rarely uniform and vary considerably throughout any given profile; therefore, the soils data should be used only as a guide in selecting “suitable” land areas. For small parcels, soil tests should be conducted to determine specific characteristics of permeability, bearing capacity and drainage.

The soils of Upper Augusta Township, Rockefeller Township and Snydertown Borough were analyzed and tabulated in terms of series and associations according to the classification system used by the U.S. Department of Agriculture, Soil Conservation Service. These associations are identified on Map 7 by two or three of the principal soil series. A brief description of the physical characteristics of these soil associations follows; the numbers in parenthesis correspond to those used on the soil associations map and in Table 4.2 Table 4.3 shows the amount of land area within each association in the Susquehanna Region.

The Kreamer-Mertz-Elliber Association (2) has mostly deep soils developed on very cherty limestone. The soils contain a high proportion of angular chert fragments which make tillage difficult. The majority of the soils in this association are subjected to a seasonal high water table, and there is a slight to moderate hazard of ground water contamination. Drainage ranges from good to poor; well-drained soils are very permeable and especially favorable for orchards since they have deep well-aerated root zones. Drainage problems of the Kreamer series and other soils are due to dense firm subsoils which limit water movement and root percolation. Depth to bedrock in this association ranges from 3 to over 4 feet.

The Lindside-Ashton-Huntington Association (4) occurs along the West Branch of the Susquehanna below Sunbury on floodplains and low terraces. Soils range from well to very poorly drained and are deep, permeable and easily tilled. The Huntington is the most extensive soil in this association and is bordered by the Schuylkill soil series.



Table 4.2  
CHARACTERISTICS OF MAJOR SOIL ASSOCIATIONS - SUSQUEHANNA REGION

Association and Series	Estimated Degree of Limitation		
	Sewage Effluent Disposal (On-Site)	Homesite Foundations* (Subdivisions)	Streets - Parking Lots (Subdivisions)
(2) Kreamer	Severe Seasonal High Water Table Slow Permeability Imperfect Drainage - Deep to Bedrock Slight to Severe/Slope Hazard of Ground Water	Moderate to Severe/Slope Seasonal High Water Table Slight to Moderate/Slope	Severe/Slope Seasonal High Water Table Moderate to Severe/Slope
Mertz	Contamination Drainage Somewhat Excessive - Deep to Bedrock Moderate to Severe/Slope Good Drainage - Deep to Bedrock		
Elliber		Moderate to Severe/Slope	Severe/Slope
(4) Huntington	Severe/Flooding Good Drainage - Deep to Bedrock Severe/Flooding Imperfect Drainage - Deep to Bedrock	Severe/Flooding Severe/Flooding	Severe/Flooding Severe/Flooding
Schuylkill			
(5) Middlebury	Severe/Flooding Imperfect Drainage - Deep to Bedrock Severe/Flooding Good Drainage - Deep to Bedrock Severe/Flooding High Water Table Poor Drainage - Deep to Bedrock	Severe/Flooding Severe/Flooding Severe/Flooding High Water Table	Severe/Flooding Severe/Flooding Severe/Flooding High Water Table
Tioga			
Holly			
(6) Chenango	Slight/Hazard of Ground Water Contamination Good Drainage - Deep to Bedrock Severe/Flooding Imperfect Drainage - Deep to Bedrock	Slight/Slope Severe/Flooding	Moderate/Slope Severe/Flooding
Schuylkill			

\* Three stories or less.



Table 4.2 (Cont.)

(7) Dubois	Severe/High Water Table	Severe/High Water Table	Severe/High Water Table
Pekin	Poor Drainage - Deep to Bedrock	Moderate/Seasonal High Water Table	Moderate/Seasonal High Water Table
	Severe/Moderately Slow Permeability, Seasonal High Water Table		
(8) Trexler	Imperfect Drainage - Deep to Bedrock		
	Moderate to Severe/Depth to Bedrock, Slope	Moderate to Severe/Depth to Bedrock, Slope	Severe/Slope
Dewart	Good Drainage - Shallow to Deep to Bedrock		
	Moderate to Severe/Slope	Moderate to Severe/Slope	Severe/Slope
Comly	Good Drainage - Deep to Bedrock		
	Severe/High Water Table	Severe/High Water Table	Severe/High Water Table
(9) Watson	Imperfect Drainage - Moderate Depth to Bedrock		
	Severe	Moderate	Moderate/Slope
	Slow Permeability	Seasonal High Water Table	Seasonal High Water Table
	Seasonal High Water Table		
Allenwood	Imperfect Drainage - Deep to Bedrock		
	Moderate to Severe/Slope	Moderate to Severe/Slope	Moderate to Severe/Slope
	Good Drainage - Deep to Bedrock		
Hartleton	Moderate to Severe/Slope	Moderate to Severe/Slope	Moderate to Severe/Slope
	Depth to Bedrock		
	Well-Drained - Shallow to Bedrock		
(10) Weikert	Severe/Slope	Severe/Slope	Severe/Slope
	Depth to Bedrock	Depth to Bedrock	Depth to Bedrock
	Drainage Somewhat Excessive to Excessive - Very Shallow to Bedrock		
Hartleton	Moderate to Severe/Slope	Moderate to Severe/Slope	Moderate to Severe/Slope
	Depth to Bedrock	Depth to Bedrock	Depth to Bedrock
	Well-Drained - Shallow to Bedrock		

Table 4.2 (Cont.)

(11) Rebuck	Severe	Moderate/Slope	Severe/Slope
	Moderately Slow Permeability		
	Good Drainage - Deep to Bedrock		
Leck Kill	Severe/Slope	Severe/Slope	Severe/Slope
	Depth to Bedrock	Depth to Bedrock	Depth to Bedrock
	Good Drainage - Shallow to Bedrock		
Klinesville	Severe/Slope	Severe/Slope	Severe/Slope
	Depth to Bedrock	Depth to Bedrock	Depth to Bedrock
	Excessive Drainage - Very Shallow to Bedrock		
(12) Norton	Severe/Slope	Severe/Slope	Severe/Slope
	Moderately Slow Permeability	Moderately Slow Permeability	Moderately Slow Permeability
	Good Drainage - Deep to Bedrock		
Klinesville	Severe/Slope	Severe/Slope	Severe/Slope
	Depth to Bedrock	Depth to Bedrock	Depth to Bedrock
	Excessive Drainage - Very Shallow to Bedrock		
(15) Rough Stony Land	Severe/Slope, Stoniness	Severe	Severe
	Good Drainage - Shallow to Bedrock		

Source: Northumberland County Soil Survey, U.S. Department of Agriculture, Soil Conservation Service.



Table 4.3  
LAND AREA IN EACH MAJOR SOIL ASSOCIATION BY MUNICIPALITY

Association	Snydertown Borough		Rockefeller Township		Upper Augusta Township	
	Acreage	%	Acreage	%	Acreage	%
2	----	----	----	---	268 716	2.16
4	----	----	----	---	265 188	2.14
5	----	----	----	---	177 723	1.43
6	209 475	9.37	----	---	165 375	1.33
7	504 357	22.56	1 395 945	10.84	1 337 553	10.77
8	340 599	15.24	6 370 220	49.77	2 588 229	20.85
9	1 180 998	52.83	2 808 876	21.94	3 383 880	27.25
10	----	----	103 341	0.80	674 877	5.44
11	----	----	----	---	2 379 195	19.16
12	----	----	1 310 652	10.24	852 012	6.86
15	----	----	819 966	6.41	323 253	2.60
TOTAL	2 235 429	100.00	12 800 000	100.00	12 413 001	100.00

Source: BUSTAT-Hor



The Middlebury-Tioga-Holly Association (5) occurs along the North Branch of the Susquehanna River above Sunbury. It includes deep, permeable alluvial soils on the floodplain. Drainage ranges from good to poor. The Holly series has a high water table, but the moderately well-drained Middlebury series is the most extensive and typical soil. Flooding occurs fairly regularly. This association has a depth of more than 4 feet of bedrock.

The Wheeling-Scioto-Chenango Association (6) occurs on terraces above the floodplains of the present streams where flooding is no hazard. Principal soils are more than 4 feet deep to bedrock and well-drained but subjected to a seasonal high water table because of moderately slow permeability. All the soils occur on gentle slopes and are favorable for agricultural use and urban development.

The Dubois-Pekin-Montgomery Association (7) includes a variety of moderately fine textured soils. Drainage (which ranges from very poor to small areas of well-drained) is the greatest limitation for most of these soils. A high water table and the fine slowly permeable subsoils make it difficult to improve drainage sufficiently for many uses.

The Trexler-Dewart-Comly Association (8) includes deep soils on shaly material ranging from poorly to well-drained but mostly well-drained and moderately well-drained. The Comly series has a seasonal high water table. Slopes are mostly gentle but range to moderately steep. Also included in this association are some areas of shaly moderately deep to shallow soils.

The Watson-Allenwood-Hartleton Association (9) includes moderately well and well-drained soils on mixed sandstone and shale materials. These occur on gentle to moderate slopes. The Watson series has slow permeability and a seasonal high water table. There are small areas of somewhat poorly and poorly drained soils on deep material and local spots of very shallow shaly soil on steep slopes. Good agricultural soils of moderate fertility predominate in this association.

The Weikert-Hartleton Association (10) is developed on interbedded sandstone and shale. It is mostly shallow to moderately deep, well drained soils on moderately steep to steep slopes. The steepness, shallowness and low moisture storage capacity of this association limit its agriculture use.

The Rebuck-Leck Kill-Klinesville Association (11) has moderately well and well-drained soils developed on red siltstone and fine sandstone. The Rebuck and Leck Kill series are deep, and the Klinesville series includes shallow and very shallow soils. Slopes range from moderate to very steep. The Leck Kill and Rebuck series are good agricultural soils, but the Klinesville series is mostly too steep and too shallow for use as cropland.

The Norton-Klinesville Association (12) includes well-drained soils developed from mixed sandstone and shale. Norton soils are deep, moderately permeable and occur mostly on moderate slopes while the Klinesville soils are shallow to very shallow and are mostly on stable slopes. There are only minor areas of the moderately well-drained Lansdale series and floodplain soils. Agricultural possibilities vary from good on the Norton soils to very limited on the Klinesville soils.

The rough stony land (15) is a miscellaneous type which includes the very stony mountain slopes where the presence of high proportion of boulders obscures the development of the soil. It is nearly all forest land.

The important parameters used to determine suitability of a given soil for subsurface sewage disposal systems, support of building foundations and general urban development are: (1) depth of bedrock, (2) height and seasonal variation of the water table, (3) soil texture, (4) internal soil drainage characteristics, (5) presence or absence of impervious layers, (6) danger of pollution of ground water and (7) stoniness. The soils of the Region were placed in three specific categories based on these parameters and listed in terms of the relative degree of limitation for development – slight, moderate and severe. They are defined as follows:

Slight – Soils with few known limitations.

Moderate – Soils with one or more properties which limit their use. Corrections of these factors will increase installation and maintenance costs.

Severe – Soils with one or more properties which seriously limit their use. Using soils with a severe limitation will increase the probability of septic system or foundation failure and add considerably to the cost of construction and maintenance.

Table 4.4 shows the criteria used to determine soil quality for urban development.

Table 4.4  
GENERAL CRITERIA FOR ON-SITE SEWAGE DISPOSAL AND BUILDING SITING

Limiting Factors	Degree of Limitation		
	None to Slight	Moderate	Severe
Soil Permeability Rate	More than 1"/Hr. *	.63 to 1"/Hr.	Less than .63"/Hr.
Depth to Bedrock**	More than 5'	3' to 5'	Less than 3'
Seasonal High Water Table	More than 4' below surface	1 1/2'-4' below surface	Less than 1 1/2' below surface
Slope	0 - 8%	8 - 15%	15% + ***
Stoniness	Stony to very stony	-----	Extremely stony to stony land
Flooding	None to seldom	-----	Occasional to frequent

\* Possible pollution hazard to surface water and ground water supplies where permeable rates are rapid.

\*\* Creviced, shattered or dissolved passageways in limestone bedrock may not adequately filter effluent and present a pollution problem

\*\*\* Slopes greater than 15% have severe limitations because unfiltered effluent may surface on the downhill slope.

Limiting Factors	Degree of Limitation		
	None to Slight	Moderate	Severe
Depth of Seasonal High Water Table	More than 4' below surface	1 1/2'-4' below surface	Less than 1 1/2' below surface
Slope	0 - 8 %	8 - 15 %	15% +
Depth of Hard Bedrock	More than 5'	3' - 5'	Less than 3'
Stoniness	Stony	Very stony	Extremely stony to stony land
Flood Hazard	None to seldom	-----	Occasional to frequent

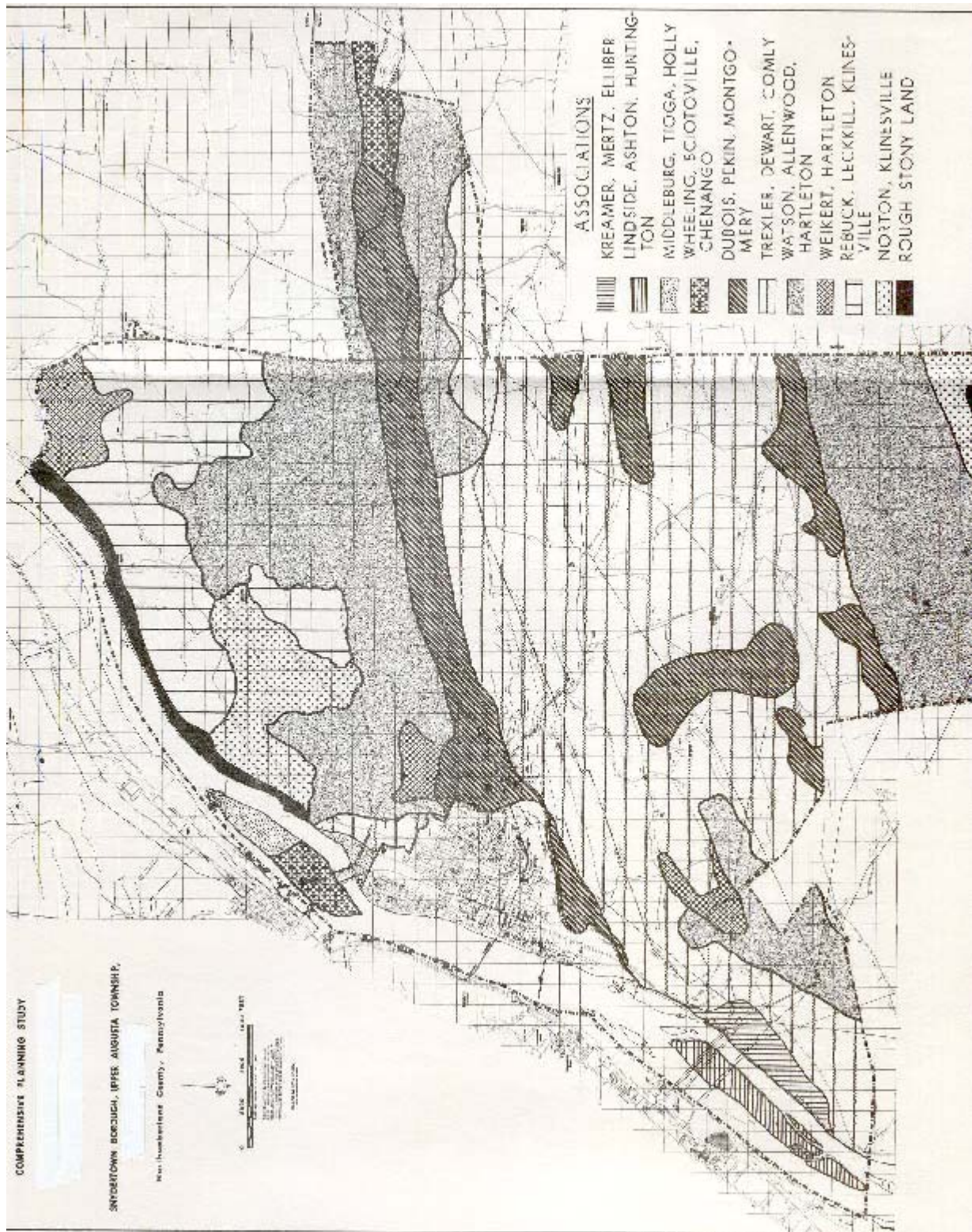
\* There are other properties unique to particular soils that limit building sites (such as unstable slopes, high shrink-swell ratios and low bearing capacities).

Source: Northumberland County Soil Survey, U.S. Department of Agriculture, Soil Conservation Service.

COMPREHENSIVE PLANNING STUDY

STONETOWN BOROUGH, UPPER AUGUSTA TOWNSHIP,

New Hampshire County, Pennsylvania



ASSOCIATIONS

- KREAMER, MERTZ, ELI BFR
- LINDSIDE, ASHTON, HUNTING-  
TON
- MIDDLEBURG, TIGGA, HOLLY  
WHEELING, SCIOTOVILLE,  
CHENANGO
- DUBOIS, PEKIN, MONTGO-  
MERY
- TREXLER, DEWART, COMLY
- WATSON, ALLENWOOD,  
HARTLETON
- WEIKERT, HARTLETON
- REBUCK, LECKKILL, KLINE-  
VILLE
- NORTON, KLINEVILLE
- ROUGH STONY LAND



Map Symbol	Soil Group	Slope (Percent)	Erosion Hazard (10 foot slope)	Drainage Classification	Depth to Bedrock (feet)	Depth to Seasonally High Water Table	Runoff Potential (Hydrologic Soil Group)	Suitability for Septic Drainage Field	Development Suitability
AbB*	Albrights silt loam	A	A	B	A	C	B	C	C
AnA*	Allenwood gravelly silt loam	A	A	A	A	A	A	B	B
AnD	Allenwood gravelly silt loam	C	B	A	A	A	A	C	C
AoB*	Allewood and Washington soils	A	A	A	A	A	A	B	B
AoC	Allewood and Washington soils	B	A	A	A	A	A	B	B
ArA	Alvira silt loam	A	A	C	A	C	B	C	C
ArB	Alvira silt loam	A	A	C	A	C	B	C	C
ArC	Alvira silt loam	B	B	C	A	C	B	C	C
AsB	Alvira very stony silt loam	A	A	C	A	C	B	C	C
Ba*	Barbour soils	A	A	A	A	A	A	C	C
Bb*	Barbour-Linden complex	A	A	A	A	A	A	C	C
Bc*	Basher soils	A	A	B	A	B	A	C	C
Bd	Basher soils	A	A	B	A	B	A	C	C
BeB*	Bedington silt loam	A	A	A	B	A	A	C	C
BeC	Bedington silt loam	B	A	A	B	A	A	B	B
BeD	Bedington silt loam	C	B	A	B	A	A	B	B
BkB	Berks shaly silt loam	A	A	A	B	A	A	C	C
BkC	Berks shaly silt loam	B	A	A	B	A	B	C	C
BkD	Berks shaly silt loam	C	A	A	B	A	B	C	C
BuB*	Buchanan gravelly loam	A	A	B	A	B	B	C	C
BuC	Buchanan gravelly loam	B	A	B	A	B	B	C	C
BxD	Buchanan very stony loam	A	A	B	A	B	B	C	C
CaB	Buchanan very stony loam	C	B	B	A	B	B	C	C
CaC	Calvin-Klinesville shaly silt loams	A	A	A	B	A	B	C	C
CaD	Calvin-Klinesville shaly silt loams	C	A	A	B	A	B	C	C
DeB	Calvin-Klinesville shaly silt loams	A	A	B	B	A	B	C	C
DeD	Calvin-Klinesville shaly silt loams	C	A	B	B	A	B	C	C
DeF	Calvin-Klinesville shaly silt loams	C	B	B	B	A	B	C	C
Du	Dekalb stony sandy loams	varies	C	varies	varies	varies	B	C	C
Dy	Dekalb stony sandy loam	C	C	A	B	A	varies	C	C
EdB*	Dekalb stony sandy loam	A	A	A	B	A	B	C	C
EdC	Dumps, mine	B	A	A	B	A	B	C	C
EdD	Dystrochrepts, bouldery	C	A	A	B	A	B	C	C
EsB*	Edom complex	A	A	A	A	A	A	C	C
EsC	Edom complex	A	A	A	A	A	A	B	B
EsD	Edom complex	B	A	A	A	A	A	B	B
EtB*	Elliber cherty silt loam	C	A	A	A	A	A	C	C
EtC	Elliber cherty silt loam	A	A	A	A	A	A	B	B
EtD	Elliber cherty silt loam	B	A	A	A	A	A	B	B
EtE	Elliber very cherty silt loam	C	A	A	A	A	A	C	C
EtF	Elliber very cherty silt loam	C	B	A	A	A	A	C	C
EvB	Elliver very cherty silt loam	A	A	C	B	C	B	C	C
	Elliver very cherty silt loam								
	Evendale cherty silt loam								

Map Symbol	Soil Group	Slope (Percent)	Erosion Hazard (10 foot slope)	Drainage Classification	Depth to Bedrock (feet)	Depth to Seasonally High Water Table	Runoff Potential (Hydrologic Soil Group)	Suitability for Septic Drainage Field	Development Suitability
HaB*	Hagerstown silt loam	A	A	A	B	A	B	B	B
HaC	Hagerstown silt loam	B	A	A	B	A	B	B	B
HaD	Hagerstown silt loam	C	B	A	B	A	B	C	C
HtB*	Hartleton channery silt loam	A	A	A	B	A	A	C	C
HtC	Hartleton channery silt loam	B	A	A	B	A	A	C	C
HtD	Hartleton channery silt loam	C	A	A	B	A	A	C	C
HuB	Hazleton and Clymer loams	A	A	A	B	A	A	C	C
HuD	Hazleton and Clymer loams	C	A	A	B	A	A	C	C
HuF	Hazleton and Clymer loams	C	B	A	B	A	A	C	C
Hv	Holly silt loam	A	A	C	A	C	C	C	C
Hy	Holly silt loam, ponded	A	A	C	A	C	C	C	C
HZ	Holly silt loam, rarely flooded	A	A	C	A	C	C	C	C
KmB*	Kreamer cherry silt loam	A	A	A	A	B	B	C	C
KmC	Kreamer cherry silt loam	B	A	A	A	B	B	C	C
LaB*	Laidig gravelly loam	A	A	A	A	B	B	C	C
LaC	Laidig gravelly loam	B	A	A	A	B	B	C	C
LbB	Laidig extremely stony loam	A	A	A	A	B	B	C	C
LdD	Laidig and Meckesville soils	C	A	A	A	B	B	C	C
LdF	Laidig and Meckesville soils	C	B	A	A	B	B	C	C
LkB	Lakin loamy fine sand	A	A	A	A	A	A	C	C
LkC	Lakin loamy fine sand	B	A	A	A	A	A	C	C
LnB*	Leck Kill shaly silt loam	A	A	A	B	A	A	B	B
LnC	Leck Kill shaly silt loam	B	A	A	B	A	A	B	B
LnD	Leck Kill shaly silt loam	C	A	A	B	A	A	C	C
Lw*	Linden silt loam	A	A	A	A	A	A	C	C
MkB*	Meckesville silt loam	A	A	A	A	B	B	C	C
MkC	Meckesville silt loam	B	A	A	A	B	B	C	C
MkD	Meckesville silt loam	C	A	A	A	B	B	C	C
MoA*	Monongahela silt loam	A	A	A	A	B	B	C	C
MoB	Monongahela silt loam	A	A	A	A	B	B	C	C
OpB	Opequon silty clay loam	A	B	B	A	A	B	C	C
OpD	Opequon silty clay loam	C	C	A	B	A	B	C	C
OpE	Opequon silty clay loam	C	C	A	B	A	B	C	C
Pa	Pits	varies	varies	A	varies	varies	varies	C	C
Qu	Quarries	varies	varies	varies	varies	varies	varies	C	C
RwB	Rushtown shaly silt loam	A	A	A	A	A	C	C	C
RwC	Rushtown shaly silt loam	B	C	A	A	A	C	C	C

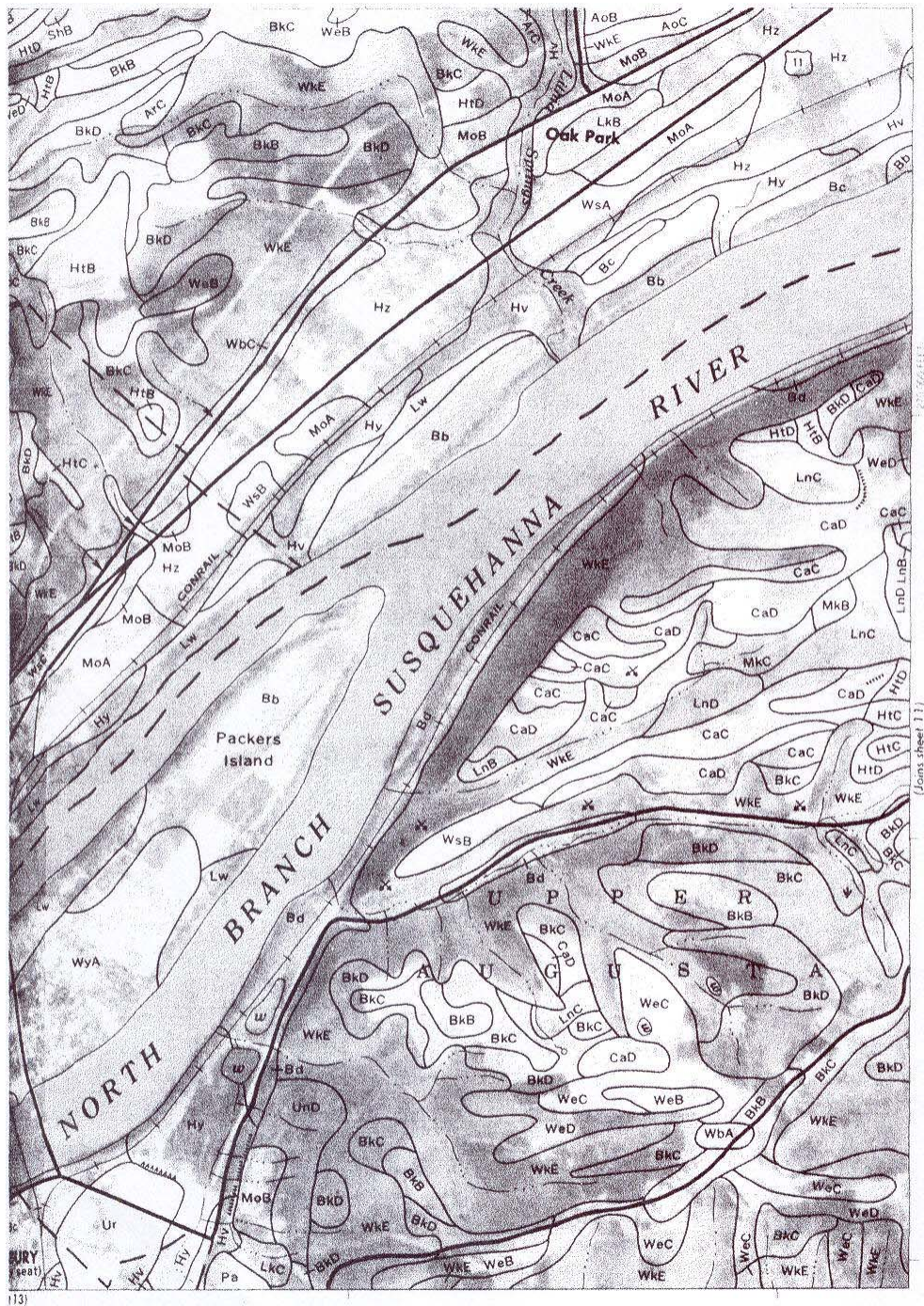
Map Symbol	Soil Group	Slope (Percent)	Erosion Hazard (10 foot slope)	Drainage Classification	Depth to Bedrock (feet)	Depth to Seasonally High Water Table	Runoff Potential (Hydrologic Soil Group)	Suitability for Septic Drainage Field	Development Suitability
ShA	Shelmadine silt loam	A	A	C	A	C	C	C	C
ShB	Shelmadine silt loam	A	A	C	A	C	C	C	C
SmB	Shelmadine very stony silt loam	A	A	C	A	C	C	C	C
Uf	Udifulvents, coal overwash	varies	C	B	varies	varies	varies	C	C
Ug	Udifulvents and Fluvaquents	varies	C	A	varies	varies	varies	C	C
Uh	Udorthents, sandstone and shale	varies	C	A	varies	varies	varies	C	C
UnB	Unadilla silt loam	A	A	A	A	A	A	A	A
UnC	Unadilla silt loam	B	B	A	A	A	A	B	B
UnD	Unadilla silt loam	C	C	A	A	A	A	C	C
Ur	Urban Land	A	A	A	A	A	A	A	A
WaB*	Washington silt loam	A	A	A	A	B	B	C	C
WbA*	Watson silt loam	A	A	A	A	B	B	C	C
WbB*	Watson silt loam	A	A	A	A	B	B	C	C
WbC	Watson silt loam	B	A	A	A	B	B	C	C
WeB	Weikert shaly silt loam	A	A	A	A	A	C	C	C
WeC	Weikert shaly silt loam	B	A	A	B	A	C	C	C
WeD	Weikert shaly silt loam	C	A	A	B	A	C	C	C
WkE	Weikert and Klinesville loams	C	B	A	B	A	C	C	C
WsA*	Wheeling soils	A	A	A	A	A	A	C	C
WsB*	Wheeling soils	A	A	A	A	A	A	C	C
WsC	Wheeling soils	B	A	A	A	A	A	C	C
WyA	Wyoming gravelly sandy loam	A	A	A	A	A	A	C	C
WyB	Wyoming gravelly sandy loams	A	A	A	A	A	A	C	C

Source: Soil Survey of Northumberland County, Pennsylvania  
U.S. Department of Agriculture, Soil Conservation Service  
\* Prime Farmland

























An agricultural capability classification is a means for grouping soils to show in a general way their suitability for most kinds of farming. Classifications are based on limitations of the soils, the risk of damage when they are used and the way they respond to treatment. Soils are classified according to degree and kind of permanent limitations but without consideration of (1) major and generally expensive land forming that would change the slope, depth or other characteristics of the soils and (2) possible but unlikely major reclamation projects. Table 4.5 shows the agricultural capability of the soil associations located in the Region.

Table 4.5  
AGRICULTURAL CAPABILITY OF MAJOR SOIL ASSOCIATIONS  
SUSQUEHANNA REGION

Capability	Soil Association
Good land that can be cultivated safely with easily applied practices. These include such measures as contouring protective cover crops and simple water management operations. Common requirements are rotation and fertilization	5, 7, 11
Moderately good land that can be cultivated safely with such protection as terracing and strip cropping. Common requirements also include crop rotation, cover crops and fertilization.	4, 6, 8, 9, 12
Soils that have limitations which make them generally unsuited to cultivation and limit their use largely to pasture and woodland.	10
Soils that have severe limitations which make them unsuited to cultivation except for pasture and forestry, with protective measures to prevent land damage.	2, 15

Source: Adaptation of U.S. Department of Agriculture Data

## WATERSHEDS

Water drains from the land through streams which increase in size from small hillside runs to major rivers that eventually discharge into the oceans. Each run, stream, creek or river receives the water from an area or tract of land surface that slopes down toward the channel. Channels, therefore, occupy the lowest part of the landscape. The ridge of the land surface (that is, the rim separating the land that drains into one stream from the land that drains into another) is called the divide. The area enclosed by the divide is called the drainage area or watershed, and every stream has a divide and a watershed.

The Susquehanna Region is drained by six watersheds. Shown on Map 8 are North Branch, Gravel Creek, Shamokin Creek, Plum Creek, Little Shamokin and Susquehanna River. The area of each watershed within the Region is given in Table 4.6.

Table 4.6  
LAND AREA WITHIN WATERSHEDS BY MUNICIPALITY

Watershed	Upper Augusta Township		Snydertown Borough	
	Acres	%	Acres	%
Gravel Creek	3,623	29	-----	-----
Shamokin Creek	1,536	12	2,233	99
Susquehanna River	4,710	38	-----	-----
Plum Creek	2,188	18	2	1
Little Shamokin Creek	147	1	-----	-----
North Branch	211	2	-----	-----
<b>TOTAL</b>	<b>12,415</b>	<b>100</b>	<b>2,235</b>	<b>100</b>

Source: Buchart-Horn

In areas of incipient development, watershed delineation, management and control are important long-range planning needs useful for identifying future water supplies, flood management and recreational use. Watershed delineations show the direction and flow of surface and subsurface drainage which is an important consideration in locating sewage treatment plants, effluent outfall points and storm sewer locations. The watershed is also a critical element of the water resources plan as follows:

Conservation Management - Conservation and improvement of the soil, sediment abatement, runoff retardation, forest and grassland maintenance and improvement, water storage and improvement of water supply.

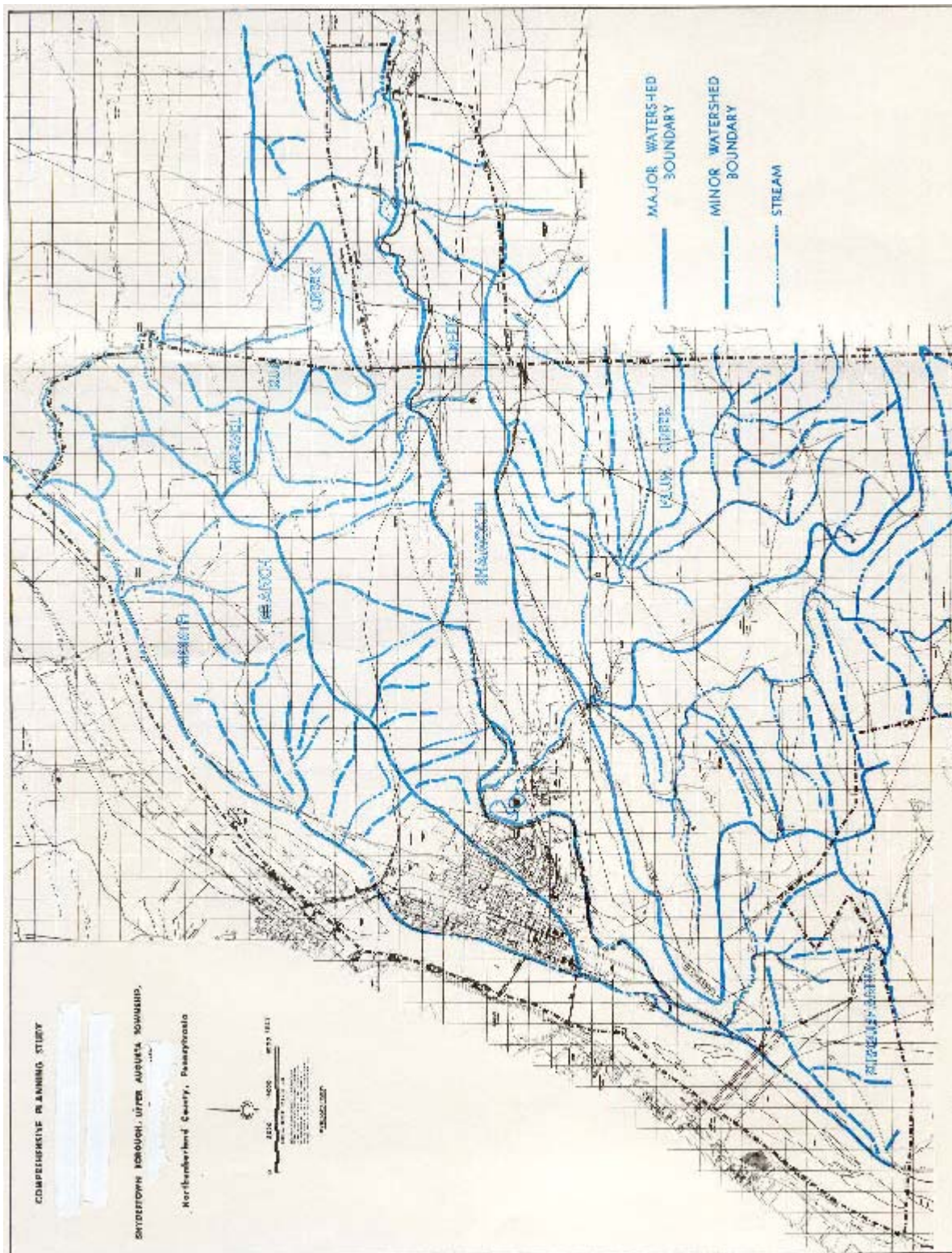
Flood Management – Conservation storage, river regulation, recharging ground water, water supply, reduction of flood damage and protection of economic development.

Water Supply – Provision of water for domestic, industrial, commercial, municipal and other uses; locating reservoirs and storage areas.

Irrigation – Agricultural production.

Drainage – Locating sewer systems.





## **Floodplains**

Floodplains are another environmental feature considered. Floodplains are usually flat areas of land bordering streams, which are periodically inundated by flood waters. Generally only rare rain storms of severe intensity cause the entire floodplain to flood. The 100-year flood boundary has been delineated on the Northumberland County *Comprehensive Plan* floodplains map. The boundary was developed from information available through the Environmental Resources Research Institute at Pennsylvania State University.

The narrow floodway is a zone of high flood intensity, where the water flows fastest and deepest. The flood hazard area, which is subject to slower flows and shallow inundation, delineates the extent of flood waters that could be expected to occur once every 100 years. FEMA uses the theoretical extent of a flood occurring once every 100 years to determine eligibility for Federal Flood Insurance. The probability of a flood inundating the flood hazard area once every 100 years is based on a statistical evaluation of rainfall and streams flow records. The occurrence of a 100-year flood does not preclude another flood of similar magnitude occurring again the next year, or even the same year.

Only over a lengthy period would one expect that a 100-year flood would, on the average, occur once every 100 years. Also, the 100-year flood hazard area delineation may expand in the future due to increased runoff caused by impervious surfaces such as streets and parking lots associated with future development.

Floodplains are areas of substantial ecological value. The sediments deposited in the floodplain by slow-moving flood waters increase the fertility of the land. Where floodplains are undeveloped, the natural vegetation provides excellent habitat for wildlife. Proximity to water heightens the floodplain's value to wildlife, and overhanging vegetation offers shade and refuge for stream organisms and helps maintain natural stream temperatures. Vegetated floodplains can act to filter out non-point source pollutants before they enter streams, thus providing a natural mechanism for water quality benefits. Floodplains are excellent locations for water-related recreation sites, as well as nature study. Since standing flood waters are steadily absorbed by floodplain soils, groundwater supplies are maintained, and flood peaks downstream are reduced.

Although floodplains are attractive sites for development due to their flat terrain and proximity to water, building in floodplains will inevitably result in significant flood-related damages and even danger to life. Any structures or paved surfaces in the floodplain prevent absorption and obstruct flood flow, thereby eliminating valuable groundwater recharge sites and increasing flood peaks.

Proper floodplain planning reduces damages associated with their development and ensures the perpetuation of the important ecological functions of floodplains. Uses that are not significantly harmed by periodic flooding, such as agriculture, recreation, and nature study, should be encouraged.



## **WETLANDS**

Wetlands are lands of transition between terrestrial and aquatic systems where the water table is usually at or near the surface of the land and the land is covered by shallow water. Wetlands are where land saturation with water is the dominating factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands are classified as coastal or freshwater with the general distinction being the plant materials they support.

Wetlands provide many important benefits including pollution filtration, flood prevention, soil erosion and sediment control, habitat for fish and wildlife including habitat for threatened and endangered species and shoreline stabilization. Wetlands also offer unspoiled, open space for the aesthetic enjoyment of nature as well as recreation activities and environmental education. The alteration and destruction of wetlands by draining, filling, or other methods has an adverse effect on environmental quality and ecological systems.

Wetlands identified within Northumberland County are those indicated by the U.S. Geological Survey, National Wetlands inventory. Wetlands maps delineate and classify wetlands based upon a hierarchical system structured around a combination of ecological, hydrological, and substrate characteristics. The classification system also contains provisions to apply modifiers to describe the amount of flooding, water chemistry, soil type, and the actions of man.

### **Topographic Slope**

Slope gradients in Northumberland County have been calculated and are presented on the Topographic Slope map. Slope is defined as the radical change in elevation over a horizontal distance, and is usually expressed as a percentage. Slope is an important determinant for land use. For example, slopes less than ten percent are suitable for most uses, though drainage problems may exist where the slope is less than two percent. Slope values between ten and fifteen percent impose sonic limitations on development. Sites may require grading or special design of septic systems, and agriculture is not always feasible. Where slopes exceed 15 percent, significant constraints on development exist. Extensive grading and filling are required for most residential and industrial development occurring on steep-sloped land. Clearing of steep sites can cause erosion and sedimentation problems if runoff is not strictly controlled. Use of septic systems is difficult, though steep slopes can accommodate large lot single-family development if construction is sensitively planned.

### **Forested Areas**

There are many areas throughout Northumberland County that are covered by trees. The Forest Service estimates that Northumberland County has over 150,000 acres of woodland, nearly all of which is privately owned. Stands of second- and third-growth trees make up the woodland. Deciduous trees are the most prevalent types. The most common deciduous species in Northumberland County are Oak and Hickory. Other common deciduous species found in Northumberland County includes Elm, Ash, Red Maple, Aspen, and Birch. The most common coniferous species in Northumberland County is Eastern White Pine.

Forests provide many important uses, one of which is in providing erosion control, especially on steep slopes, and protecting watersheds. The control of erosion on steep slopes is achieved through the root's ability to hold soil and rock in place. This allows the forests surrounding watersheds to keep runoff flow in suspended solids, such as soil particles, which helps to keep lakes and streams free from sediment. Forests control erosion in another important method. Tree cover reduces the impact of falling water droplets on the surrounding soil by intercepting them in the tree crown. The water then either falls from the leaves with a much-reduced velocity, or is transmitted to the tree's branches and trunk where it reaches the soil as stem flow. This reduction of the rainwater's impact on the soil prevents particles from being dislodged and becoming water-carried sediment.

Forests are also important areas of animal habitat. Many larger species such as deer and bear depend on the cover of the forest for their protection and ultimate survival. The food supply in a forest can be very rich if the soils and climate are favorable. Animals will often seek forested regions to isolate themselves from man's influence and impacts. Forests also provide protection from the elements. Tree cover slows the evaporation of water and minimizes wind velocities, allowing animals to better survive extremely difficult periods of drought.

Forests can be productively harvested. The 1992 US Census of Manufactures identified 11 lumber and wood products establishments in Northumberland County. The 11 establishments employed about 700 people. A forest does not have to be completely stripped of trees to produce timber. Selective cutting is often used to thin out dead and undesirable trees, allowing the forest to become more productive.

Among the many uses and functions of a forest, perhaps the one that provides the greatest benefit is its aesthetic value. Forests allow the natural beauty of an area to be magnified. Allowing natural areas such as forests to exist undisturbed allows the environment of an area to be more fully appreciated, understood, and protected.

## **Water Features**

Regions in Northumberland County, which are covered by water, are also a significant type of land cover. Lakes, ponds, rivers, and streams all constitute water-covered areas in Northumberland County. The water-covered areas are shown on the Floodplain map. Very small water features such as farm ponds and intermittent streams and springs are not shown on the map.

The Susquehanna River forms Northumberland County's western border. The Susquehanna River is the major source of drainage in the area. Various streams drain small areas of Northumberland County, but most eventually empty into the Susquehanna River. The Susquehanna is the nation's sixteenth largest river, providing more than half of the freshwater flow into the Chesapeake. The Susquehanna River is a major and provides a recreational resource in Northumberland County. It also provides an important source of habitat for both aquatic and non-aquatic species.

## **Agricultural Preservation**

The Agricultural Preservation Area term as used in this updated Joint Municipal Comprehensive Plan is applied to areas with existing agricultural productivity that are part of a large, contiguous area of land predominately devoted to agricultural activity (including forestry). Objectives of Agricultural Preservation Area land use designation are to protect the agricultural land base, preserve the rural way of life, and strengthen the farming industry. Agricultural Preservation Areas are inappropriate for non-farm development and infrastructure investment. Agricultural Preservation Areas should be reserved primarily for agricultural purposes, including agricultural support businesses, for reasons of productivity, environmental sensitivity and economy. The Agricultural Preservation Areas, can however, include small rural villages serving local needs.

### **Agricultural Preservation - Issues**

- A. Historically, agriculture has played a major role in the economic development of both municipalities, although in recent decades has declined as the primary source of family income. The long predicted rise in agricultural product and transportation costs is now driving the return to local and regional sources for agricultural products to both assure agriculture product availability to the public and reduce agriculture product transportation costs. Closeness to major market areas combined with quality soils and favorable climate make this area an ideal location for the farming industry. All three components of the agribusiness system, farming, farm supply/service and the processing/marketing of agricultural products are in or in close proximity to this area of Northumberland County. Agricultural operations in both municipalities are predominately small family enterprises although many small family farms have actual crop farming performed under contracts with larger consolidated agricultural operators who have the necessary large efficient agricultural equipment and lower unit costs through their ability to purchase supplies in larger bulk quantities. Major agricultural products produced in the area are corn, wheat, soybeans, hay, truck/greenhouse crops, and to a lesser degree orcharding, dairying, cattle, chickens and pigs. With the dramatic rises in transportation costs, a shift towards year-round crop production such as provided by greenhouse techniques is expected and encouraged.
- B. A key problem facing rural areas adjacent to urban/suburban centers is pressure to convert farmland to non-farm uses, especially residential. Suburban growth continues to consume productive and fertile farmland in the area. The development of non-farm uses in scattered rural locations contributes to the decline of farming operations on adjacent farmland. Farming finds itself in competition with the demand for housing and commerce, which escalates the price of the land and restricts the choice of agricultural operations making farming unaffordable. Escalating land values increase the likelihood that farmers will sell their property for non-farm uses. Placing residences in scattered rural settings sets residential dwellers in the midst of farming operations often leading to enactment of nuisance regulations that hinder and disrupt the practice of agriculture. People often move to rural areas in search of a quiet country atmosphere, only to discover that common agricultural practices involve noisy machinery, odors and dust. Increased traffic on rural from suburban development roads makes it difficult and hazardous to move crops and machinery.

- C. The protection of farmland can also be viewed as part of a larger program to protect natural environmental systems. Farmland is capable of absorbing large; of water and function as groundwater recharge areas and temporary floodwater storage areas. The agrarian landscape also provides Northumberland County with broad open space, expansive cultivated fields, meadows, woodland, hills, valleys, as well as a variety of farms and rural villages that blend to form a unique rural character and visual quality. Conservation of the agricultural lands will retain fertile soil, provide water resource and air quality protection, support wildlife, and protect scenic resources and the farm heritage. Rural lifestyles and natural resources should be retained in Northumberland County.
- D. Both prime and non-prime farmlands are important and need protection. Livestock and poultry operations do not require or depend upon having prime agricultural soils.

### **Agricultural Preservation - Policies**

A. Encourage the enhancement and continuance of the agricultural community in Northumberland County.

- Improve the quality of rural life.
- Preserve the existing community scale, structure and character.
- Encourage rural land uses, where appropriate, which meet the needs of the agricultural community in Northumberland County.
- Maintain and encourage the family farm concept.

B. Promote and maintain a stable agricultural economy in Northumberland County. Support agriculture as a primary land use and a valued element of the County's economy. Preservation of farmland can help the economy, jobs and the well being of all residents in Northumberland County by providing for the maintenance and expansion of food processing industries.

- Enhance the agricultural economy and strengthen the farming industry.

Provide opportunities for increased and diversified agricultural productivity and processing.

Restrict economic development in agricultural areas to only agricultural activities and support businesses, such as farm equipment sales and service, farm supply stores, and businesses which market or process farm products. However, such businesses should not locate on prime agricultural soil.

Encourage local processing of agricultural products.

Create and maintain opportunities for direct local marketing of agricultural products.

Provide equitable agricultural land taxing and assessment system,,.

Protect existing agricultural uses so they may continue to thrive.

Enhance the income potential of the farm operation.

C. Maintain and preserve the most productive and viable agricultural land in Northumberland County for agricultural use.

Priority should be given to protect farmland as follows.

- Currently being used for agricultural production and which will continue to be productive.
- Composed of soils that are capable of cultivation with little difficulty, especially concentrations of Class 1 and 11 soils, which are prime soils most efficiently suited to the production of row, forage and fiber crops, and unique soils, which are other than prime soil that has special combination of soil quality, location, topography, growing season, and moisture supply necessary to produce specialty crops, such as fruits, vineyards and vegetables.
- Part of a large contiguous area of land predominantly devoted to agricultural use, even though it may include small areas of non-farm properties.
- Participating in programs administered by the Agricultural Stabilization and Conservation Service (ARCS).
- Included within an appropriately located Agricultural Security Area, as established by Act 43, as amended
- Located within a zoning district with the primary purpose of preserving agriculture and which contain aggressive agricultural preservation zoning techniques.
- Not under significant development pressure

-Already protected by existing perpetual restrictions against development or is close to properties that have had their development rights purchased.

- Restrict the expansion of infrastructure, such as public sanitary sewer and water, into agriculture areas that are not considered appropriate for suburban or urban development. If sanitary conditions make such extensions necessary, they should be limited in capacity to serve the specific problem area and not accommodate additional non-farm development.
  - The construction of new local access highways through agricultural areas should be discouraged. The construction of new regional limited-access highways through agricultural areas should only be considered where no other feasible options are available. The placement of interchanges between limited-access and local access highways within agricultural areas is strongly discouraged to avoid encouraging new development.
  - Restrict growth on soils identified as hazardous for structures or on-lot sewage disposal systems or in areas where geology limits the availability of water from on-site wells. A significant amount of the soils that comprise our farmland are severe or hazardous for on-lot sewage disposal due to the potential for polluting groundwater supplies.
  - Conserve the soil and water to sustain long-term productivity of agricultural land. Coordinate farm production and soil conservation programs. Reduce soil losses which gradually limit the capabilities of agricultural land to sustain its productive use.
  - Provide adequate land for non-farm development, such as residential, commercial and industrial uses, in areas identified as appropriate and logical for growth.
  - Direct higher density development adjacent or within (infill development and revitalization) existing developed areas that provide or are capable of providing public infrastructure and services and adequate transportation access. Orderly and compact patterns of development are necessary to reduce the amount of land needed for development. Agricultural lands adjacent to existing development with the public infrastructure and services necessary to support urban development, and as designated for such on the Land Use Plan, should be converted to non-farm use to prevent adverse leapfrog development patterns.
  - Direct non-farm development within Agricultural Preservation Areas to parcels least-suited for agricultural production. Discourage adverse development patterns such as sprawl, strip and leapfrog development. Sprawl development patterns create islands of uses that separate farm fields and generate lifestyle, public service and environmental conflicts. Support the limited expansion of rural villages, with uses intended to enhance the agricultural community.
- D. Establish the environmental importance of farmland and rural open space.
- Recognize that agricultural land is a natural resource.

The protection of farmland and related open space should be viewed as part of a larger program to protect the natural environmental system.

- Farmland and rural open space. Provide:
  - Productive soil.
  - Groundwater recharge areas.
  - Temporary floodwater storage areas.
  - Air quality.
  - Wildlife habitat.
  - Aesthetic and scenic value.

While respecting individual property rights, the overriding consideration should be to maintain the agricultural economy, and to conserve farmland as a natural resource for future agricultural use.

#### Agricultural Preservation - Implementation Strategies

The following methods, tools and techniques can be used to protect farmland and limit encroachment on rural land in Northumberland County.

- Encourage municipalities to prepare comprehensive plans that are consistent with this Northumberland County *Comprehensive Plan*. If agricultural preservation is a community objective, the plan should support and justify agricultural zoning techniques and other tools intended to preserve farmland and the agricultural economy. Planning should include all reasonable development needs while providing for the protection of farmland resources.

A technique to identify productive agricultural lands for preservation is the Land Evaluation and Site Assessment (LESA) system. LESA is a decision making tool based on a point system. LESA is a comprehensive evaluation of the productive capacity of the soil of a site and the viability of the site for agriculture. The land evaluation is derived from basic soils data contained in the Northumberland County Soil Survey including the productive capacity for corn, natural fertility of the soil, topography, cost of conservation treatment and drainage. The site assessment portion of the LESA system is a listing of factors that are related to the development pressures and the development capability suitability of a site and its surrounding area. Each municipality in Northumberland County should determine the factors, their weights and point value distribution that best reflects their goals. The higher the total points accrued for a parcel, the more agriculturally viable the parcel.

Encourage municipalities in Northumberland County to enact zoning provisions that are agriculturally protective. Zoning should be used as a short-term tool to preserve agricultural lands, as well as provide a growth management framework. Agricultural zoning is encouraged for agricultural communities outside the designated growth areas. The zoning techniques and intensity of the agricultural zoning provisions selected by a municipality to protect farmland should be based on a variety of factors and tailored to the individual needs and concerns of each municipality. Local farmers should be involved in the establishment of the planning strategy and zoning provisions intended to preserve farmland and enhance the agricultural community. In areas where farming is predominant and where little or no non-farm development has occurred, municipalities should consider the use of aggressive agricultural preservation zoning techniques such as sliding scale, large lot exclusive agriculture district or the Transfer of Development Rights (TDR) program. Communities that have significant rural single-family development may find the buffer rural districts and cluster provisions more appropriate. Each municipality can combine the following techniques in innovative ways to meet farmland preservation needs.

The sliding scale method links the total number of residential units permitted directly with the size of the tract of land at the time of adoption of the regulations. The sliding scale technique allows the municipality to avoid the challenge of complete exclusion of residential units, while restricting the number of residential units created in an agricultural preservation zone. Traditional subdivision development is thereby avoided in the rural agricultural areas. An example of such a scale follows:

<b>Size of Original Tract of Land Dwellings</b>	<b>Maximum Number of Non-Farm Single-Family</b>
0 to 19 acres	1
20 to 49 acres	2
50 to 99 acres	3
100 to 149 acres	4
150 to 199 acres	5
200 to 349 acres	6
350 or more acres	7

Variations of the scale by individual municipalities are recommended to reflect local concerns and conditions. Further refinement is achieved by establishing a minimum and maximum building lot size. Establishing a maximum lot size, usually varying from one to two acres, and encouraging the clustering of non-farm development on the least productive land helps to keep prime farmland in agricultural use.



Large lot exclusive agricultural zones make agriculture the primary permitted use in the district. Limited non-farm uses and even some agricultural activities requiring special treatment are permitted as special exceptions or conditional uses. The large lot exclusive agricultural zone method usually establishes a large minimum acreage requirement, typically varying from 20 to 40 acres for farm and non-farm uses. The agricultural lot size permitted should be sensitive to the minimum land area customary for farms in the area. Provisions should, however, be included that allow reduced lot sizes for a limited number of non-farm rural residences. Non-farm dwellings should be clustered on the least productive soil instead of built indiscriminately at different locations throughout the farm property.

Transfer of Development Rights (TDR) allows development rights to be purchased and transferred for use in another location. TDR programs direct growth to certain areas while permanently preserving large tracts of agricultural land or open space. A typical TDR system establishes both a preservation or sending district and a development or receiving district. Landowners in the preservation district are assigned development rights, which they may sell to landowners in the development district who may use these rights to build at higher densities than allowed under current zoning regulations. Caution is urged in the use of the TDR concept, due to the program's complexity.

Buffer rural zones provide for country living opportunities while minimizing incompatibilities between agricultural production and suburban and urban land uses. Buffer rural zones allows single-family homes, but the primary focus would still be on protecting and encouraging agricultural activities. This is considered a practical approach to land conservation that preserves farmland and significant open space, but also allows landowners equitable value for their land holdings. Creative layouts with mandatory open space involving flexible siting (cluster) are recommended instead of traditional rural zoning where entire parcels are subdivided into 1-to-3 acre lots. A brief example of downsized-lots mandatory-open-space follows:

- Require all new developments proposed on open fields or pasture to be laid out so that no more than 50 percent of the farmland is consumed by streets or lots. The resultant open space would be permanently protected by conservation restrictions for future agricultural or open space use. Septic systems could be on-lot, off-lot in the open space, or joint systems shared by several homeowners. Lot size would be reduced and the dwelling units grouped. Lots should be laid out to the greatest extent possible, to achieve the following objectives in order of priority:

- On the most suitable soil for septic disposal.

- On the least fertile soil for agriculture use and in a manner that maximizes the usable area remaining for agricultural use.

Within any woodland contained on the parcel, or along the woodland fringe to reduce the impact upon agriculture, provide summer shade, shelter from winter wind and enable new construction to be visually absorbed by natural landscape features.

In locations least likely to block or interrupt scenic vistas as seen from public roadways.

Allow provisions that require a minimum percentage (generally 70 percent to 80 percent) of Class I and 11 soils or an active farm be preserved for agricultural use. The remaining portion can be developed for non-farm uses.

Enact flexible zoning regulations that provide the following

- .
- Provide for housing relatives and farm employees.
- Provide the ability to sell select. parcels on poorer soils for limited development.
- Permit activities that provide markets for agricultural products.
- Allow home occupations such as farm machinery repair, furniture making, and sale of baked goods, as a supplemental form of income for farm families, provided the home occupation do not constitute a significant encroachment on the farm use of the property, interfere with farming operations or create undue traffic congestion.
- Permit farm related businesses that serve the needs of the local farming community such as grain mills, butcher shops, veterinary offices, fertilizer distributors and other uses involving the processing from local farm products.
- Permit forest, open space, parks, and low-impact recreational uses on lands within agricultural areas.

Establish right-to-farm provisions in which normal farming operations are not considered a nuisance. Act 43 of 1981, known as the Agricultural Security Area Law, prohibits municipalities from (1) imposing ordinances that unreasonably restrict farm structures or practices within Agricultural Security Areas, and (2) declaring normal farming operations and practices as "nuisances" in a nuisance ordinance. Act 133 of 1982 also places limits on the use of nuisance ordinances that adversely affect normal farming operations. Act 133 protects agricultural operations from nuisance suits under certain circumstances. Notification should be provided to residents moving into an area predominantly devoted to agricultural use, that noise, odors and dust are considered normal farming operations and are not considered a nuisance. Therefore, the new residents should be prepared to accept inconveniences and discomfort arising from normal agriculture practices. Subdivision plans containing building lots on farmland should include a note acknowledging that such subdivision is located in a farming area and that agricultural activities have priority over non-farm uses.

As with other conservation areas, planning and elected officials should be cognizant of the controversies of the takings issue, as it relates to the planning process and the preservation of farmland.

- The expansion of small rural villages should be limited and based upon the types of agricultural activities in the area, the quality of the soils for agricultural <sup>use</sup> and the ability of the soil to accept septic disposal systems. Clear boundaries should exist between villages and farmland.
- Prepare Act 537 plans that support farmland protection. Restrict extension of public sanitary sewer service into agricultural areas that are not considered appropriate for suburban and urban development.
- Plan and coordinate highway projects and improvements that minimize the impact on farmland. Improve rural roads that are necessary to enhance the viability of farming, especially those identified as important for the movement of agricultural products and machinery.
- Encourage the establishment of appropriate Agricultural Security Areas, under Act 43 consistent with the Northumberland County *Comprehensive Plan* and municipal comprehensive plans. Care should be taken not to designate farmland that is appropriate for urban growth. Once an Agricultural Security Area is adopted and recorded, municipal review of the zoning for the area should occur in order to reflect and promote the intended purpose of the Agricultural Security Area.
- The County Agricultural Preservation Board should continue to administer the Farm Purchase Program.
- Encourage private non-profit organizations or land trusts to acquire development rights, conservation easements and properties, for the purpose of farmland preservation when consistent with this Northumberland County *Comprehensive Plan*.
- Encourage equitable taxation and assessment policies for agricultural property. For instance, the Pennsylvania Farmland and Forest Land Assessment Act, Act 319, commonly known as the Clean and Green Act, is designed to preserve farmland, forest land and open space by taxing land according to its use value rather than the prevailing market value. The Clean and Green Act is voluntary and property owners interested in this preferential assessment program should contact the County's Assessment Office. Act 71 exempts farmers from payments of assessments for municipal improvements such as the installation of sewer and water lines. The Department of Agriculture provides application forms for this exemption. Act 179 exempts family farm corporations from the ten-mill Capital Stock Franchise Tax. Requests for exemptions of family farm corporations should be submitted to the Pennsylvania Department of Revenue. Responsibility for the administration of Act 207 is also assigned to the Department of Revenue. Act 207 provides that farmland must be valued at its farmland, rather than maximum development value for inheritance tax purposes. These acts are intended to help keep land in farming and to improve the family farm.



Improve farm-community relationships. Reduce conflicts between the farmer and non-farm rural neighbors. Natural buffers, such as stream corridors, woods and hedgerows, should be used wherever possible to buffer residential development from farm use. The compatibility between farming activities and residences needs to be evaluated and planned for. Orchards and nurseries are more compatible with residences than barnyards, feedlots and grazing pasture. Field crops fall in the middle.

- Promote good stewardship of the land and the use of sound conservation and management practices. Minimize groundwater pollution and other environmental erosion consequence such as non-point source pollution, attributable to poor agricultural management practices. Reduce the dependency on expensive and potentially toxic chemicals for agricultural use.
- Advocate joint municipal planning and zoning, where appropriate, as a means with which each municipality need not provide for all land uses, thereby retaining rural character.

B. The following educational activities relating to Agricultural Preservation can be employed in Northumberland County.

- Educate government officials and the general public on techniques that preserve agriculture and open space. Dispel the notion that "agricultural land" is simply another term for "vacant land".
- Encourage the establishment and enhancement of agricultural education and research programs.
- Support the establishment and continuance of adequate farm related programs such as the Agricultural Stabilization and Conservation Service, Soil Conservation Service, County Conservation District, Cooperative Extension Service, 4-H, Granges, and Farmers Associations. Increase technical assistance for farmers.

# Weather

## VALLEY STATISTICS

## PRECIPITATION

Statistics for Selinsgrove

..... yesterday*	0.02
..... month to date*	2.12
..... normal month to date	3.00
..... year to date*	32.41
..... normal year to date	42.09
..... year's departure from normal	-9.68

**TEMPERATURE**

..... yesterday's high/low*	37/30
..... normal high/low	36/20

As of 4 p.m.

Yesterday in the 48 Contiguous States.

ational High: 83 at Corpus Christi, TX  
ational Low: -12 at Berlin, NH

## LINDA DUNN

**WIND CHILL**  
Today

8 a.m.	30°
noon	36°
4 p.m.	43°

An indication of how cold it will feel today based

## HEATING DEGREE DAYS

Yesterday .....	31
Season to date .....	2152
Last season to date .....	2045
Normal season to date .....	2248

**NEW PRESENTS**

SKI RESORTS	Base	Trails	Open
Id Area New Snow	12-50	37	
Junter Mtn-NY	24-48	5	
ack Frost-PA	8-34	6	
reek Peak-NY	0-0		
Id Sawmill-PA	12-24	7	
ussey Mtn-PA			

## RIVER STAGE

WATER STAGE	Today's level	Flood Stage
Wilkes-Barre	9.97	22 feet
Anville	8.95	20 feet
Unbury	11.76	24 feet
Enovo	3.39	15 feet
Williamsport	5.16	19 feet

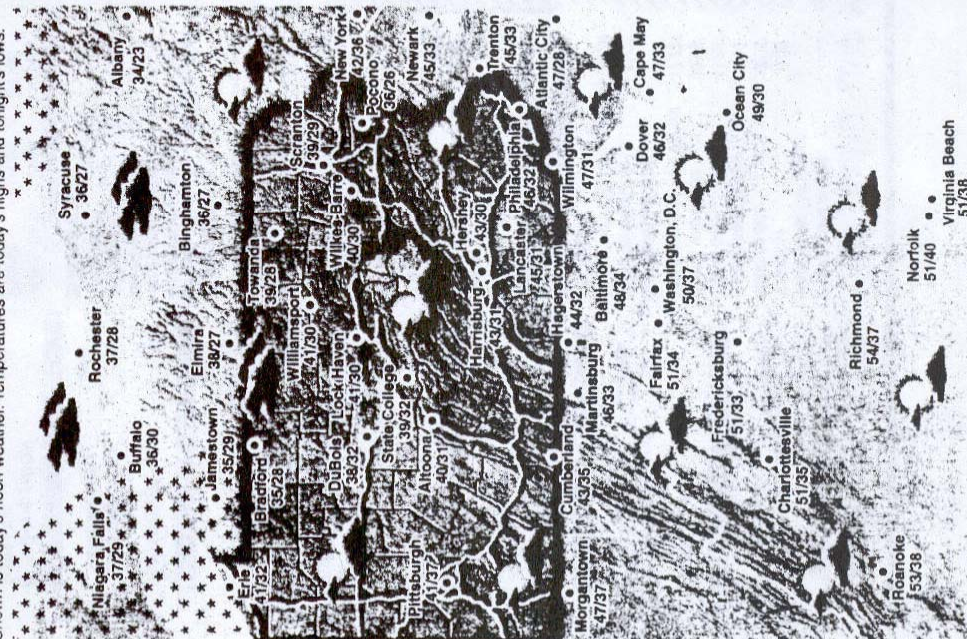
## WEATHER UPDATES

For the latest weather forecasts, call the info update line. After the Introduction dial **selection 1405**.

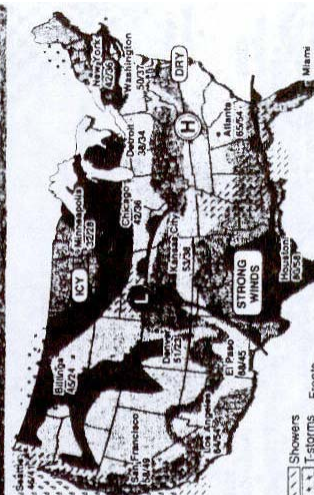
36-1818	374-1800	758-3567
12-1818	271-1814	644-1818

## REGIONAL FORECAST

Shown is today's noon weather. Temperatures are today's highs and tonight's lows.



**TODAY'S NATIONAL TOPICS**



Shown are noon positions of weather systems and precipitation. Temperature bands are highs for the day. Forecast high/low temperatures are given for selected cities.

City	Today			Monday		
	H	L	W	H	L	W
Albany	34	23	31	35	24	
Albuquerque	54	34	55	56	46	
Albany	65	54	65	66	53	
Atlantic City	47	28	44	48	38	
Boston	34	30	35	36	29	
Boston	34	30	35	37	28	
Buffalo	36	30	37	37	28	
Charlotte	64	46	62	46		
Chicago	42	36	42	42	28	
Cincinnati	54	30	58	39		
Cleveland	43	37	43	36		
Columbus, OH	49	41	54	40		
Dallas	80	52	76	42	5	
Dayton	51	35	55	26		
Des Moines	44	34	39	23		
Denver	38	34	40	32		
Detroit	46	32	43	38		
Evansville	46	32	43	38		
Fort Worth	80	55	80	46		
Galveston	82	66	80	66		
Houston	82	43	82	46		
Las Vegas	62	43	62	46		
Los Angeles	64	54	60	48		
Madison	55	45	53	41		
Memphis	41	22	35	25		
Minneapolis	36	28	36	28		
Mobile	46	36	38	43		
New Britain	35	27	36	27		
New York	70	56	70	56		
Omaha	68	51	68	57		
Orlando	68	51	68	57		
Philadelphia	68	51	68	57		
Pittsburgh	68	51	68	57		
Portland	68	51	68	57		
Reno	68	51	68	57		
San Francisco	68	51	68	57		
San Jose	68	51	68	57		
Seattle	68	51	68	57		
St. Louis	68	51	68	57		
St. Paul	68	51	68	57		
Tampa	68	51	68	57		
Washington, DC	68	51	68	57		
Wash., DC	68	51	68	57		
Wichita	68	51	68	57		
Wilmington	68	51	68	57		
Yonkers	68	51	68	57		

(W) s-sunny, pc-partly cloudy, c-cloudy, sh-showers, ft-furrows, storms.

AccuWeather.com



# Weather/Local

## PRECIPITATION

Statistics for Selinsgrove  
 Yesterday..... 0.00"  
 Month to date..... 3.08"  
 Normal month to date..... 3.00"  
 Year to date..... 49.86"  
 Normal year to date..... 42.09"  
 Year's departure from normal..... +7.77"

## TEMPERATURE

Yesterday's high/low..... 41/27  
 Normal high/low..... 36/20  
 As of 4 p.m.

Yesterday in the 48 Contiguous States\*  
 National High: 84 at Naples, FL  
 National Low: -20 at West Yellowstone, MT

## WIND CHILL

Today  
 9 a.m. .... 46°  
 noon ..... 54°  
 3 p.m. .... 54°  
 An indication of how cold it will feel today based on temperature and wind speed.

## HEATING DEGREE DAYS

Yesterday ..... 31  
 Season to date ..... 1946  
 Last season to date ..... 2152  
 Normal season to date ..... 2248  
 Index of fuel consumption indicating how far the day's mean temperature was below 65 degrees.

## SKI RESORTS

Ski Area	New Snow	Base	Trails	Open
Hunter Mt.-NY	0	10-40	23	23
Jack Frost-PA	0	12-36	12	12
Greek Peak-NY	0	2-14	6	6
Ski Swarth-PA	0	2-10	1	1
Tussey Mt.-PA	0	0-0	0	0

## RIVER STAGE

Today's level Flood Stage  
 Wilkes-Barre 5.49 22 feet  
 Danville 6.66 20 feet  
 Sunbury 10.80 24 feet  
 Renovo 3.41 15 feet  
 Williamsport 5.09 19 feet

## TODAY

Mostly cloudy with a shower

HIGH 55° LOW 32°

## TUESDAY

Rather cloudy and breezy

HIGH 46° LOW 20°

## WEDNESDAY

Mostly sunny

HIGH 48° LOW 25°

## THURSDAY

Mostly cloudy and mild

HIGH 77° LOW 28°

## FRIDAY

Mild with rain

HIGH 45° LOW 36°

## SATURDAY

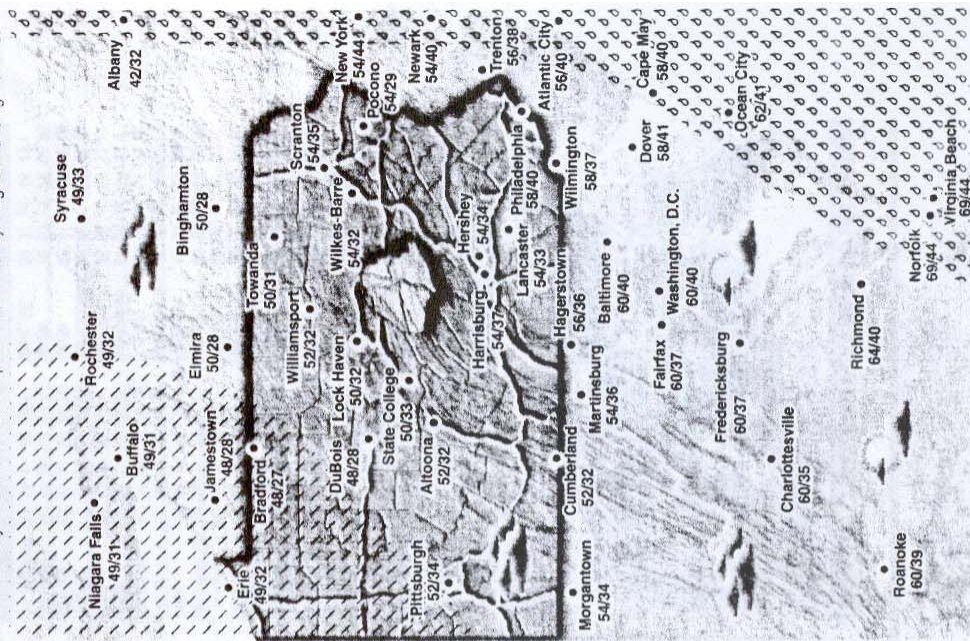
Mild with clouds and sunshine

HIGH 50° LOW 30°

## SUN AND MOON

Tomorrow  
 Sunrise 7:32 a.m.  
 Sunset 4:51 p.m.

Shown is today's noon weather. Temperatures are today's highs and tonight's lows.



AccuWeather.com

For the latest weather forecasts, call the info update line. After the introduction dial selection 1405.

286-1818 374-1800 758-3567  
 742-1818 271-1814 644-1818

Forecasts and graphics provided by AccuWeather, Inc. ©2006



## **ECONOMIC CONDITIONS AND HISTORICAL FACTORS/ISSUES**

## **2. ECONOMIC CONDITIONS**

### **REGIONAL LOCATION**

The Susquehanna Region is part of the Appalachian Highlands – a broad band of long, parallel mountain ridges and intermontaine valleys which cross Pennsylvania from the south-central border to the northeast corner. Because of the mountainous topography, the communities of the Region are primarily accessible to other areas by the river routes which cut across the ridges and valleys. Map 1 shows the strong pattern formed in central Pennsylvania by the North and West Branches of the Susquehanna River and the Juniata River. Nearly every important settlement is located directly on one of these rivers. Thus, instead of creating barriers, the rivers have focused development into the valleys where the river and its adjacent land routes form the primary connecting links.

The City of Sunbury is located on the Susquehanna River southeast of the fork of the North and West Branches. As the Northumberland County seat, and an important economic and social center as well, Sunbury is clearly the focal point of the Susquehanna Region. Even today, Upper Augusta Township and Snyderstown Borough remain dependent on Sunbury for goods and services.

Historically, both highway and rail accessibility to and from the Region has been limited to the north-south axis, primarily following the Susquehanna River. As shown on the regional location map, U.S.15 and the Pennsylvania Railroad both connect the Region south to Harrisburg along the main stem of the river and north to Williamsport along the West Branch. Convenient accessibility is also possible northeast to Scranton via U.S. 11 and the Reading Railroad along the North Branch of the river.

The Region's newest highway – Interstate 80 – does not follow the historic river valley pattern. Not only does this highway travel overland irrespective of the river routes, it also has an east-west axis and makes New York to the east and the major Midwestern cities conveniently available. Its importance to the Region is only beginning.

## **HISTORIC ECONOMIC PATTERNS**

Central Pennsylvania's Appalachian Highlands is a geographic area of variation and dissimilarity where farming is important to one section yet unimportant to another, where the loss of mining jobs has caused a depression in some communities while no mines have existed in others, where factories have shut their doors as others have opened and where the loss of population has been compensated for by growth elsewhere. This pattern is not unusual in areas whose economic base is almost solely dependent upon natural resources. The depletion of these resources or the loss of demand for the same resources creates severe depression and hardship.

The Appalachian Highlands of Pennsylvania flourished as a result of its abundant natural resources. When the demand for these resources allowed, virtually no other economic advantage existed to fall back on. The Highlands are largely dislocated from major urban market areas; no trade centers exist other than for marketing local products; educational levels are low; and, until the construction of Interstate 80, no modern highway existed. The result has been that the State as well as individual communities have been forced to make great efforts and, in some cases, economic concessions to attract manufacturing firms as employment sources.

As in all settled areas, central Pennsylvania's earliest settlers followed the Susquehanna River north to locate in the rich valley farmlands. Subsequent development, however, took advantage of the Region's rich natural resources. Forest resources produced a flourishing lumber industry centered in Williamsport. Early iron industries were established in Danville, Bloomsburg and Berwick. In the southern portions of Northumberland, Montour and Columbia Counties, hard coal was found and, although declining today, has dominated this Region since the late 19th century. Of these early industries, only agriculture, with a current emphasis on dairying and poultry, is an important source of income to the Region. Lumbering, although declining from the 19th century peak, has since reached a point of stability. More than 120 sawmills in the Region supply a number of secondary processing industries, including millwork, veneer and plywood and furniture. Iron smelting and distributional activities as the most important source of jobs in the Region, headed toward virtual extinction.

During early settlement, the river continued as the primary mode of transportation. However, as the Region began to industrialize, the depth of the river proved too shallow and irregular to carry products and the roads too narrow and steep to carry the bulk of lumber and coal resources. In the early 19th century, the Commonwealth undertook a large canal program throughout the State. Part of this program resulted in canals along both the North and West Branches. Soon after, private railroads, notably the Reading Railroad and Pennsylvania Railroad, built lines following the river as had trails, roads and canals previously. The railroads quickly became the predominant form of industrial transportation through the first half of the 20th Century – large enough to carry bulk products yet versatile enough to serve most urban and developed communities. In the latter half of the 20th Century, motorized transport via trucks eroded the railroads position as primary carriers of goods other than bulk products; while bus and airline companies as well as private automobiles essentially took long distance passenger traffic away, leaving a declining and deteriorating rail system except for the commuter lines around and between large urban population centers. Wholesale abandonment of rail lines and consolidation of railroads ensued with the Susquehanna region negatively impacted until recently when regional rail service carriers rebounded with substantial governmental assistance permitting location of industrial facilities in other than urban and developed communities. Nonetheless, only the Norfolk-Southern remains as a major long distance rail carrier through the area while the North Shore and Shamokin/Pottsville lines now serve local area industries and businesses, but with less than half of the rail trackage of the first half of the 20th Century. The rising costs of fuel for all forms of transportation has begun to impact all forms of transportation with increased use of



railroads becoming imperative for economical transport of goods, but with seriously diminished capacity of railroads to handle the expanding needs. Local bus service within the region disappeared by the end of the 20th Century and long distance bus transportation schedules have been significantly reduced from levels as late as the 1980's – mostly because of competition from private automobiles. Regional light aircraft airfield runways have been extended at the Northumberland County Airport, the Northumberland/Montour County (Danville) Airport and Penn Valley Airport permitting landing of larger aircraft, but the overall effect on commercial passenger air travel has been relatively minimal. The Sunbury Airport remains a low volume use airport facility with no real physical expansion capability possible at its site.

In the latter half of the 20th Century, lower Northumberland County experienced continuing declines in mining and manufacturing jobs. The loss of jobs has been reflected in comparable population losses in cities such as Sunbury, Shamokin and Mount Carmel, although somewhat offset by continuing increases in population in some adjacent townships and boroughs. Efforts for diversification of employment have been variably successful in the region under regional programs coordinated and supported by SEDA-COG and the Pa. Industrial Development Act. Recent internal improvement programs and comprehensive planning efforts by Sunbury and nearby townships and boroughs are making communities more attractive to outsiders, although no substantial changes in population growth beyond trends evident in the last 2 to 3 decades have as yet been seen.

### HISTORIC DEVELOPMENT PATTERNS

"History is the foundation on which future planning is built – failure to know and acknowledge history dooms most men's efforts to alter it."

The following regional and local histories give insight into why population centers developed, why transportation routes were located and some insight into economic and physical factors that shaped the areas economy and growth.

## **History of Upper Augusta Township**

Scant original documentation by native Indians in the Susquehanna Valley was created or remains from the period prior to the 1750's except that the Indian town of Shamokin (now Sunbury) existed at least for many decades at a site adjacent to the confluence of the West and North Branches of the Susquehanna River. Archeological evidence supports this record of Sunbury's early existence as one of the leading Indian towns connected by many trails to other tribes of the Five Nations of the Iroquois Confederation. When the white man arrived in the area of what would become the current Northumberland County, he found a cohesive Indian government with an elaborate communication system using the trails which largely followed the Susquehanna and its major tributary streams. Even today, many of the major roads such as Routes 147 and parts of Route 61 follow the original Indian trails.

In 1768 a Treaty was signed with the Five Nations allowing not only the area of the current Northumberland County, but also the entire area of the North Branch and the entire valley to be opened to the white man's settlement — an area encompassing almost 8,000 sq. miles. The influx of settlers into the lands of and adjacent to the Susquehanna Valley created a need for governance resulting in the establishment of Northumberland County in 1772 which encompassed all the new territory. Sunbury was established as the county seat at the same time. Following the conclusion of the Revolutionary war in 1783 (Treaty of Paris) an additional treaty was negotiated and signed on October 23, 1784 at Fort Stanwix, New York. This treaty expanded Northumberland County westward to the Allegheny River and Conewango Creek — an area which expanded Northumberland County to 15,000 sq. miles. Thus at this point Northumberland County's 15,000 sq. miles was equivalent to 1/3rd of the total territory of what is now the Commonwealth of Pennsylvania.

Augusta Township was one of the original seven townships created with the establishment of Northumberland County. It encompassed all of the lands south of the North Branch of the Susquehanna River to Mahantango Creek and from the west side of the main stem of the Susquehanna River east to Berks County. From 1775 until 1813, the County's size was reduced from 15,000 sq. miles to the present 454 as all or parts of 29 counties would be formed from Northumberland County. Augusta Township suffered a similar fate finally disappearing as one of the original named townships when it was divided into Upper Augusta and Lower Augusta Townships in 1846, although even then these remnants continued to lose territory to newly formed boroughs and townships.

The current area encompassed by Upper Augusta Township was originally occupied by the Lenape or Delaware Indian Tribe with the Indian village of Shamokin (now Sunbury) as its key tribal village in the area. White settlers settled on the Township's western edges beginning in the 1760's close to Fort Augusta, but the real surge in settlement occurred after the formal incorporation of Sunbury as the county seat of Northumberland County in 1772 and after the conclusion of the Indian uprising known as the Wyoming Massacre. The eastern end of what is now Upper Augusta Township was settled by the Kline family from New Jersey at what is now Klinesgrove in 1799. Agriculture was the primary occupation of a majority of the new settlers, who quickly cleared the land of the primeval forest. Agriculture related activities such as the establishment of grist mills occurred along the several streams and creeks in the area and their remnants can still be seen in original settlement areas such as Klinesgrove. Several important original Indian paths and trails traversed parts of the Township and were important avenues for settlers entering the Township. The upgrading of these trails to roads and building of railroads along both sides of the Susquehanna River and Shamokin Creek further opened what is now Upper Augusta Township to settlement, but the agricultural uses of the land continued to be, and remain the dominant usage of land once logging operations cleared the Township of old growth forest. Except for mining of shale for fill and road base construction, mining has never been an important industry in the Township unlike nearby areas of Northumberland County to the east.

### **History of the Borough of Snyderstown:**

The Borough of Snyderstown is located on the Shamokin Creek about 7 miles from its mouth which flows into the Susquehanna River near Sunbury. The village center is surrounded by hills on both sides of the creek. On the hills are farms and many newer houses. Snyderstown is the second largest borough in Pennsylvania. Two state roads, 4012 and 4005, run through the village. There are 6 miles of borough roads.

Snyderstown was settled in 1796 as a farming center where local people could grind their grain at the grist mill located on the Shamokin Creek, saw their logs at the sawmill on the same creek, visit the blacksmith, doctor, shoemaker or tanner, shop at stores and stay at the hotel. Snyderstown was incorporated as a borough on May 26, 1871. It had formerly been part of Shamokin Township.

Two railroads ran through the Shamokin Valley and the Borough of Snyderstown. One built in 1835 hauled coal from Shamokin to Sunbury where it was put on barges. The first rails were wood, which was provided by the local sawmill. It became the Pennsylvania Railroad. The decline of coal production led to the decline of the railroads. It carried passengers until 1938 and freight until 1978. The tracks were removed in the early 1980's. The second railroad (Reading Railroad) was built in 1883 to haul coal. Passenger service ended in 1950. It is now the North Shore Railroad, and it still hauls freight.

In the early 1900's Snyderstown had 3 stores, which supplied the residents and farmers in the surrounding area. It had doctors and many trades. Many of the residents worked on the railroads. A stocking mill also provided employment in the 1910's, 1920's and 1930's. Coal dredging of the Shamokin Creek happened in the 1930's and 1940's.

After WWII until today, residents travel to work mostly outside the borough to towns as far away as Harrisburg. Some farming occurs. Little commerce occurs now with residents having to travel to nearby towns (mostly Sunbury) for their food and supplies



## **POPULATION AND HOUSING SURVEYS**

## POPULATION DEMOGRAPHICS – ADJACENT MUNICIPALITIES – 1960-2000

	1960	1970	1980	1990	2000
Snydertown Boro.	278	267	358	416	358
Upper Augusta Twp.	1991	2354	2745	2681	2555
Rockefeller Twp.	1253	1365	1851	2029	2222
Lower Augusta Twp.	696	664	983	1024	1079
Rush Twp.			1169	1097	1189
Shamokin Twp.			2035	1697	2159
Sunbury			12292	11591	10610
Northumberland Co.	104138	99190	100381	96771	94556

## HOUSING/POPULATION DEMOGRAPHICS FROM 1980 CENSUS (continued)

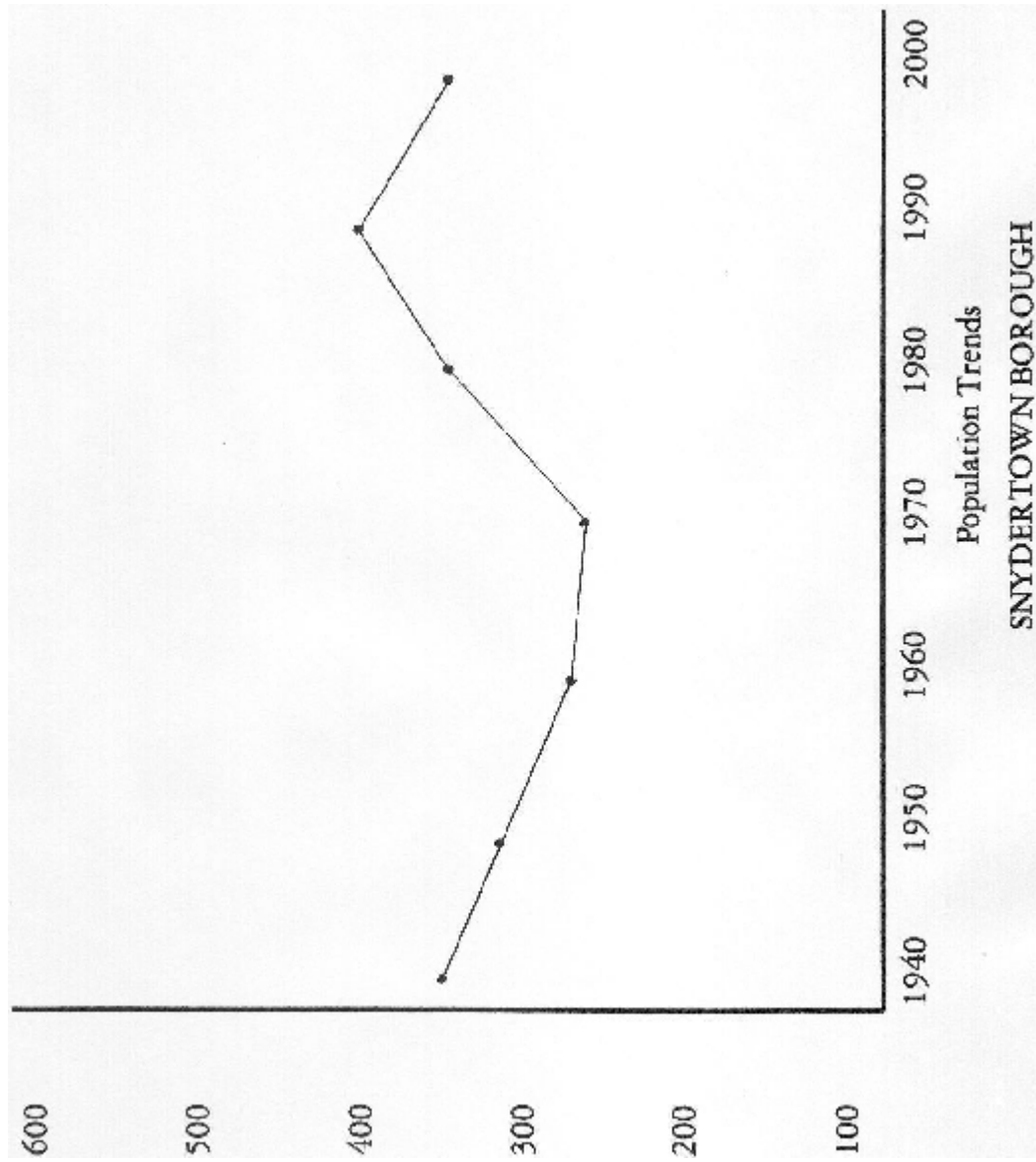
	Total # Houses	Occpy'd Houses	Total # Persons	% Fem.	% <18	% 65+
Snydertown Boro.	131	118	358	46.3	33.7	8.6
Upper Augusta Twp.	967	941	2745	50.5	27.1	12.6
Rockefeller Twp.	626	605	1851	50.1	30.9	7.9
Lower Augusta Twp.	341	327	983	48.2	31.0	7.1
Rush Twp.	391	364	1169	47.4	32.9	9.0
Sunbury	5419	5030	12292	54.4	26.4	17.3

HOUSING/POPULATION DEMOGRAPHICS FROM 1990 CENSUS (continued)

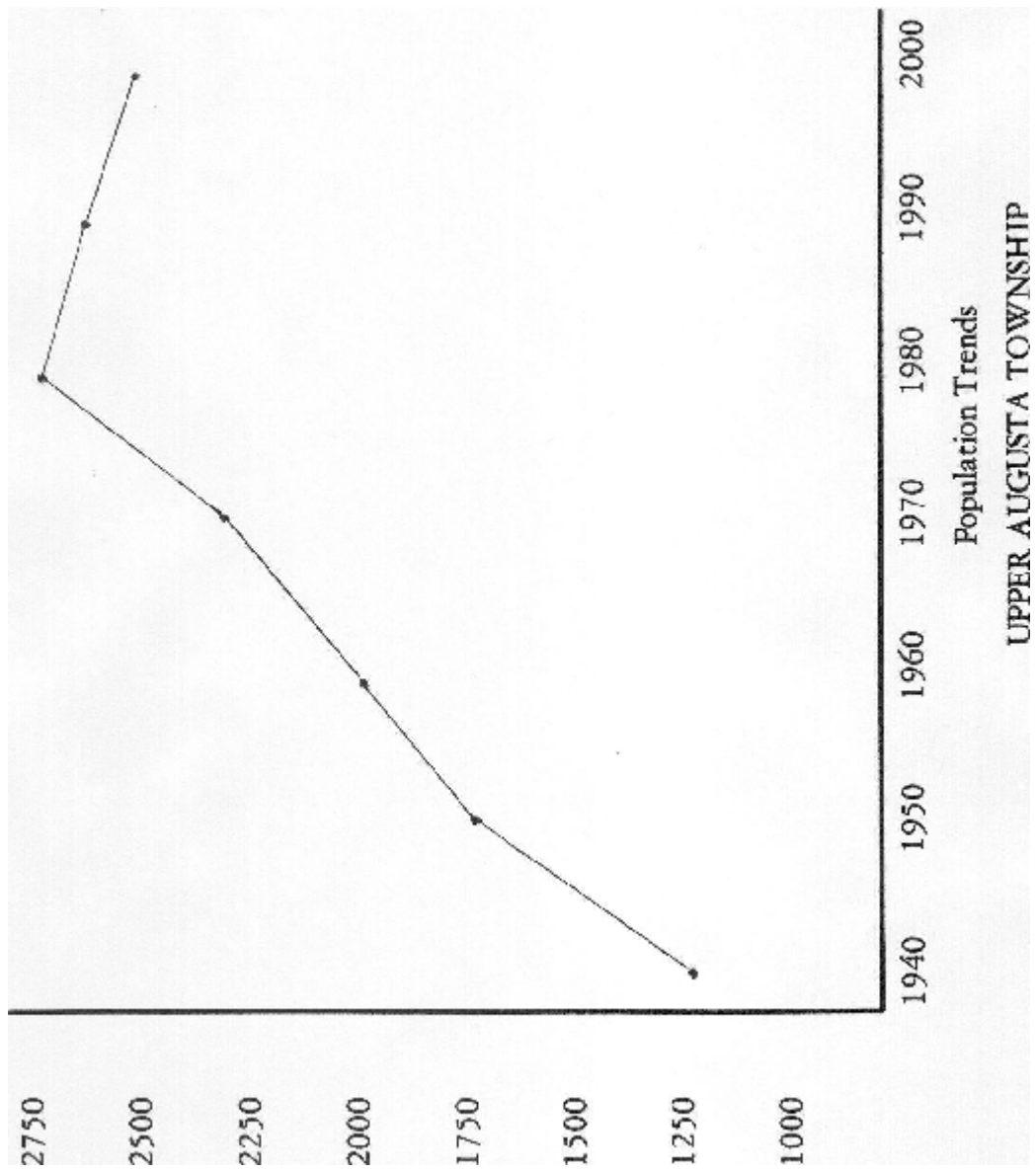
	Total # Houses	Occpy'd Houses	Total # Persons	% Fem.	% <18	% 65+
Snydertown Boro.	150	138	416	45.4	31.5	12.2
Upper Augusta Twp.	1041	1002	2681	49.4	21.8	15.7
Rockefeller Twp.	718	699	2029	49.3	21.2	10.3
Lower Augusta Twp.	366	357	1024	49.3	28.4	12.0
Rush Twp.	394	373	1097	48.6	27.2	11.8
Sunbury	5116	4788	11591	54.8	32.8	18.7

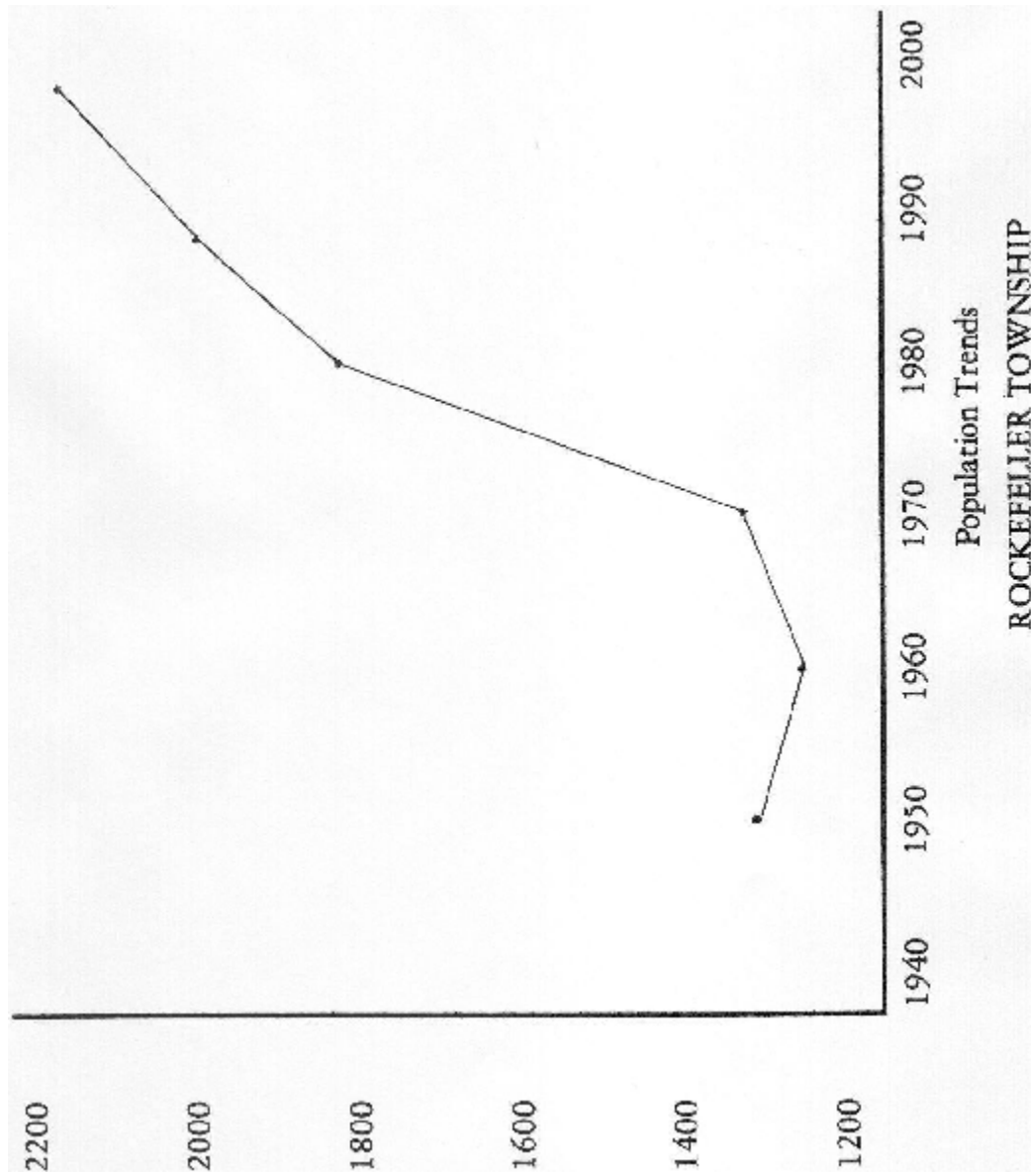
HOUSING/POPULATION DEMOGRAPHICS FROM 2000 CENSUS (continued)

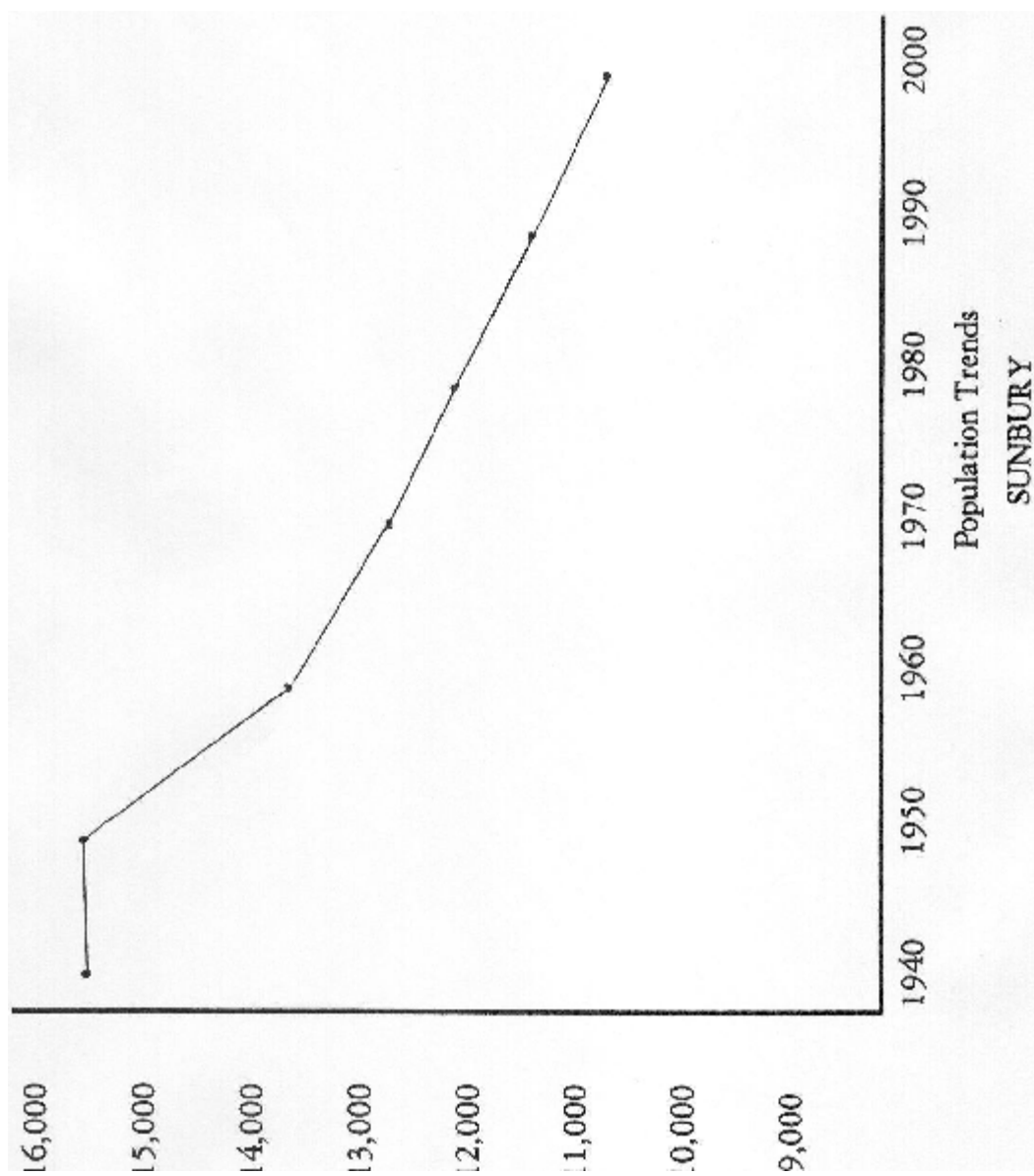
	Total # Houses	Occpy'd Houses	Total # Persons	% Fem.	% <18	% 65+
Snydertown Boro.	143	136	357	45.1	23.8	11.8
Upper Augusta Twp.	1058	1022	2556	50.8	20.0	18.0
Rockefeller Twp.	868	836	2221	50.1	22.8	13.2
Lower Augusta Twp.	425	401	1079	48.2	21.5	13.0
Rush Twp.	469	443	1189	50.6	26.4	14.3
Sunbury	5072	4540	10610	56.8	23.9	17.4

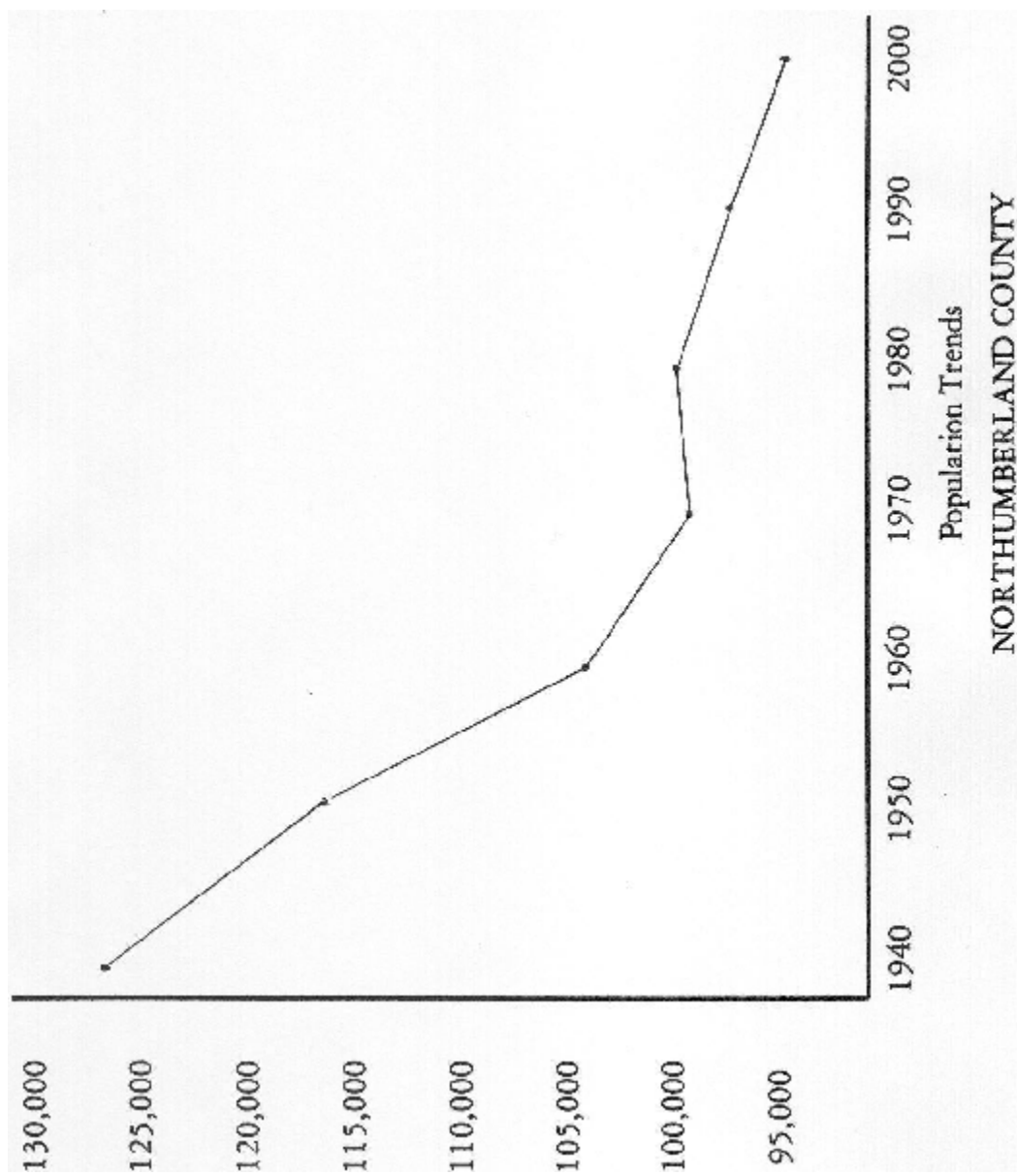














## **HOUSING ELEMENT:**

### **Background:**

The Federal government requires (since Housing Act of 1949) a housing element as a part of planning that could require Federal assistance. The housing element survey includes not only the number of housing units, but also a determination of the overall condition of housing. The following definitions used by the U.S. Census for evaluating housing condition are to be used in the housing element survey. The exterior condition of any building is generally a good indicator of its overall physical condition, hence surveys to determine the overall condition of housing are limited to exterior building conditions. Land use maps are to show both the location and condition of dwellings.

**Sound:** Housing which has no or slight defects normally correctable during regular maintenance.

**Deteriorating:** Housing which requires more repair than normal maintenance. Examples of this are open cracks and rotted, loose or missing materials over a small area of the foundation, walls or roof.

**Dilapidated:** Housing which does not provide safe and adequate shelter and presents a condition potentially endangering the health or well-being of the occupants. Examples of this are holes, open cracks, missing materials, etc., over large areas. Sagging roofs and bulging walls are also critical elements.

The housing condition survey should be tabulated in such a manner as to be easily readable and include the following elements for each municipality:

Total number of housing units in residential and in non-residential areas.

Total number and % of housing units in residential and non-residential areas that are judged to be sound.

Total number and % of housing units in residential and non-residential areas that are judged to be in deteriorating condition.

Total number and % of housing units in residential and non-residential areas that are judged to be in dilapidated condition.

Summary of Windshield Survey of Residential Housing - Upper Augusta Twp.

Agricultural, commercial, and public/private utility buildings including accessory buildings/structures are not included in the tabulated survey nor are residential accessory buildings/structures, but the location of non-residential buildings and structures was often noted on the maps for purposes of confirming their location in relation to residential buildings.

The surveys were conducted by members of the Upper Augusta Twp. Planning Commission over a one month period. Each surveyor received a map of the survey area assigned and recorded the location and condition of each residential building observed. Results were aggregated by the chairman of the Planning Commission. The condition of the residential buildings was evaluated from a street side location, or in rural areas from access driveways. No attempt was made to correlate tax map properties with the residential houses, nor was any attempt made to identify any person(s) living in the residences or the actual address of the residence. The actual survey maps are treated as confidential and tabulated results are generalized to prevent specific identification of residences.

Of the residential buildings surveyed the following generalized statistics regarding residential building condition were observed:

Seriously deteriorated or dilapidated housing units	1.1%
Deteriorating housing units	20.3%
Sound housing units	78.5%

The results would seem to indicate an improvement in residential building maintenance from the previous survey, but results are not considered to be comparable as the survey methodology did not use a single surveyor and some variation in interpretation of survey guidelines by the surveyors was inherent.

## **EXISTING LAND USE – ZONING DISTRICTS**

## **EXISTING LAND USE** **(excludes rivers and streams)**

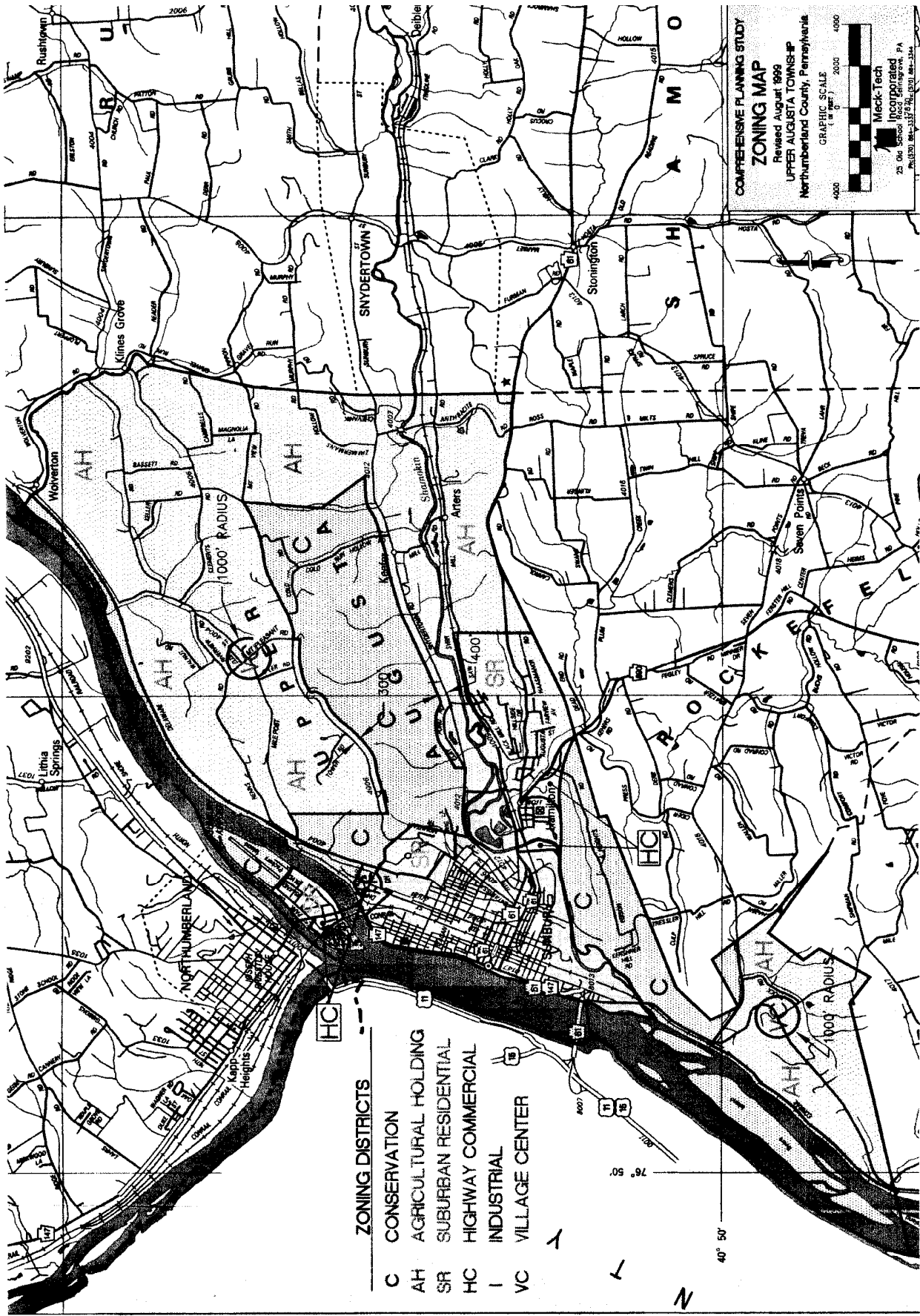
Invaluable in any comprehensive plan are the mapping and tabulation of existing land uses. Land use is a term which refers to the spatial distribution of existing land functions - agricultural areas and non-developed forested or vacant lands are considered non-developed land uses in the context of this land use tabulation. Floodways/floodplains and restricted development areas; residential or living areas; industrial or work areas; and the support functions offered by commerce, institutions and utilities are considered developed land uses albeit often restricted ultimately by zoning and subdivision/land development regulations. By studying existing land use patterns, a variety of data and other information can be acquired that, in turn, serves for future land use planning in the region. Land use patterns within each municipality and watershed area are detailed to provide a more accurate basis of current and potential future development including delineating the type and extent of zoning districts. Land use classification and sub-categories for purposes of survey, tabulation and mapping are defined as follows:

### **DEVELOPED LAND USES:**

<b>Classification</b>	<b>Description</b>
<b><u>Residential:</u></b>	All residential land uses are classified according to the land occupied by the dwelling unit or the character of the dwelling unit.
Suburban	A dwelling unit occupying one acre of land or less.
Rural Non-Farm	A dwelling unit occupying a - 10 acres of land.
Mobile Home	A Dwelling unit specifically designed to be transported on its own wheels and continues to have this capacity after being emplaced.
<b><u>Commercial</u></b>	Commercial uses are classified into three categories
General	Any building, floor use area primarily engaged in the sale of goods, services, lodging or entertainment.
Agricultural Related	Any non-farm located building, floor use or area primarily engaged in the sale of goods or services related to agricultural product production.
Automotive Sales/Service	Any building, floor use or area primarily devoted to the sale or service of transportation equipment. House trailer and mobile home sales are to be included in this category.
<b><u>Industrial</u></b>	Any establishment primarily engaged in manufacturing, construction or wholesaling or storage of goods.
Manufacturing	Industrial establishments engaged in the production of durable and non-durable goods.
Non-Manufacturing	Industrial establishments engaged in non-manufactured products or services. Trucking terminals are included in this category.



Junk/Salvage Yards	storage yards for scrap, recyclables, junk, old autos/trucks, etc generally open for wholesale and/or retail sale.
Waste Management	Waste product processing/storage facilities and transfer stations.
<hr/>	
<b><u>Public and Semi-Public</u></b>	Public and semi-public uses include any building, floor area or area primarily devoted to uses for public or semi-public purposes listed in the following categories:
Schools	Any building, floor use or area devoted to public education; to include recreational and physical educational areas associated with the school. Religious based and chartered schools are included in this category as well as specialized education or training centers.
Churches and Cemeteries	Any building, floor use or area utilized or owned by a religious group and cemeteries, public or private.
Parks and Recreation	Outdoor recreation areas such as parks, preserves, playgrounds, picnic areas and trails.
<hr/>	
<b><u>Communications, Utilities Transportation</u></b>	Areas, buildings and structures devoted to communications, utilities or transportation: the following categories listed are generally self-explanatory.
Building and Installations	
Roads and Highways	
Railroads	
Power Lines	
Communication Towers	
<hr/>	
<b>NON-DEVELOPED LAND USES:</b>	
<hr/>	
<b><u>Agriculture/Forestry</u></b>	Land areas reserved for, or in active agriculture/forestry uses. Tree farms, landscape plant nurseries, greenhouses, ponds and intensive agriculture uses such as dairies, animal feeding operations, chicken/egg production facilities, etc. are included in this category. The presence of home(s) and/or major buildings related to the agriculture/forestry uses of the land are not considered developed uses, but are tabulated. Land area must be 10 or more acres to qualify as an agriculture/forestry unit.
<hr/>	
<b><u>Vacant</u></b>	Uninhabited open or forested land areas not reserved for, or in active agriculture/forestry uses.



## **TRANSPORTATION SYSTEMS**

## TRANSPORTATION SYSTEMS

### ROADS AND HIGHWAYS

Any network of roads and highways must serve three basic objectives:

- Permit safe, expedient movement of traffic within and through an area
- Make all of the component parts of a municipality and region accessible to one another and external areas.
- Should fit in harmoniously with the overall development pattern of a community

This last objective is particularly important in planning because of the role roadways play in shaping patterns of new land development. As an example, with the potential completion of the Selinsgrove Bypass (U.S. Route 15) and its linkage to Interstates 180 and 80, access to the area for motorized traffic would be significantly enhanced, but with this potential increased traffic flow, local roadways feeding into this system will need to be upgraded while minimizing detrimental effects on existing land uses. Access to this high volume, high speed highway network could make possible and profitable the development of previously limited accessible areas within the Township and Borough. There is growing pessimism over the future of motorized transport via highways given the rising costs of fuel and the lack of available governmental funding for such high cost highway improvements; hence while acknowledging the future potential of such highway development and the need for contingent planning, alternative plans to expand more efficient means of transporting goods such as railroads must also be addressed.

A related example of potentially important but long delayed highway improvement proposed in the original Comprehensive Plan adopted in 1972, was the improvement and relocation of Pa. Route 61 to link U.S. Routes 11/15 with the Pa. Routes 901 and 54 (which provide alternate access to Interstate Routes 80 and 81). The potential usefulness of a Pa. Route 61 improvement has not been diminished, and with the potential completion of the Selinsgrove Bypass makes such improvement of Pa. both more feasible and desirable.

Existing System. The Federal Highway Administration's National Highway Classification system is described as follows:

- A. Principal Arterials. These are freeways which serve corridor movements having trip and travel density characteristics indicative of substantial state-wide or interstate travel. They generally link large urban areas. They provide an integrated network except where geographic or other unusual conditions dictate stub connections.
- B. Minor Arterials. These are major highways or roads that serve the remaining urban areas (over 5,000 population) and other traffic generators having equivalent road transportation requirements. They form an integrated network with the principal arterials to provide intrastate and inter-county service.
- C. Collectors. These are roads which serve and link small urban centers and other established communities not adequately served by the arterial system. They serve consolidated schools, small industrial, shipping and commercial sites, agricultural centers, recreational areas, etc., and provide service to developed areas within a reasonable distance of a collector road.

- D. Local Roads. These include all remaining roads which primarily provide access to individual properties and adjacent lands. They provide the lowest functional level of mobility without thru traffic movement and do not include state designate routes. They may be maintained by either the state or local municipality.

The attached multi-colored map shows the highways and roads in Snyderstown Borough and Upper Augusta Twp. as well as immediately adjacent areas. State designated routes as well as legislative designated routes and local named roads are shown. Only State Routes 147 and 61 are designated as minor arterials in Upper Augusta Twp. All other roads in the Township or Borough are designated as collectors or local roads.

### **Traffic Volumes.**

The most fundamental and visible description of a roadway's function is the volume of traffic using the roadway over a given time. To standardize the number, volume is generally expressed over a 24 hour period, factored by both day of week and month of year, to produce Average Annual Daily Traffic (AADT) value. AADT's are very expensive to compile and are thus infrequently updated with the most recent county-wide data available being from 1994. Comparative AADT's are only available from the 1970's and hence limit the ability to analyze more recent changes in volume over time and their implications for transportation planning in the area. Caution should be taken in the use of AADT's . The values given are based on spot counts taken over a period or periods of time to assist in preparing road network-wide estimates. Spot counts by their nature may not be representative of an entire road segment and extrapolation of their values over longer distances dilutes their validity. Further, because of the methodology used, in order to preserve the statistical validity of AADT's the projected ranges of traffic volumes are often quite wide. While recognizing their limitations however, the AADT is the best standard method of evaluation. AADT values from 1994 data are given where available for the collector roads listed below.

As presently designated by the Pa. Department of Transportation, the following collector routes within the Borough and/or Township provide access to and from the arterial system.

### **North-South Routes**

1. Pa. Route 890 serves as a northeast-southeast collector through Rockefeller Township and part of Upper Augusta Township, connecting Pa. Route 61 to the north and Pa. Route 225 at Trevorton to the south. Its average annual daily traffic (AADT) range varies between 1,500 and 3,000.
2. L.R. 49034/49074 travels in a north-south direction through Snyderstown. It connects the Borough to Riverside to the north via L.R. 49074 and to Route 61 at Stonington via L.R. 49034 to the South. Its AADT is 300 to 800 vehicles.

### **East-West Routes**

3. L.R. 49040 serves as a collector road between Riverside at Pa. Route 54 and Sunbury at Pa. Route 147. Movement is northeast-southwest across the upper part of Upper Augusta Twp. It has an AADT ranging from 650 to 1350, with the maximum at Sunbury. Its effectiveness is reduced because of curves and alignment with the sharp curve and narrow bridge over a small creek in the Township preventing use by long wheelbase vehicles.



4. L.R. 49041, known locally as Mile Hill Road travels parallel to and south of 49040 which it connects to at the village of Klinesgrove. Its classification as a collector highway ends at Mount Pleasant Road where it connects via Mt. Pleasant Road to L.R. 49040. Its future effectiveness as a traffic carrier is limited by the steep grades and curves on the portion of the highway immediately north of Sunbury. Despite this limitation, its AADT is larger than L.R. 49040 at 600 to 1,900 vehicles because it offers more direct access to downtown Sunbury.

5. Pa. Route 242 carries traffic in an east-west direction across Northumberland County, linking Snyderstown with Sunbury to the west and to Elysburg and Pa. Rt. 54 to the east. Following the upgrade of Pa. Route 54 as part of the link between Interstates 80 and 81, this east-west collector has experienced increased traffic as an alternate link between Pa. Route 54 and Sunbury paralleling Pa. Routes 487/61. Although the AADT is rated at 1,500 to 1,700 vehicles the AADT has not been re-evaluated since the completion of the upgrades to Pa. Rt. 54. Residents of Snyderstown Borough indicate they have seen both an increase in traffic and an increase in speeds of vehicles traversing the road. The increased speeds have raised safety concerns at the intersection of L.R. 49034 and Route 242 where line-of-sight distances are too short for high speed traffic.

## MASS TRANSIT

### Railroads.

Passenger rail service is no longer available. Through freight service is carried by Norfolk-Southern (successors to Conrail). Rail service from Sunbury to Paxinos/Shamokin and other points east through Upper Augusta Twp. is provided by a local carrier. Connecting rails across the North Branch of the Susquehanna River to the Northumberland Rail Yards and the North Shore rail lines paralleling the west shore of the Susquehanna River are still functional and have been undergoing renovation with some expansion anticipated to serve local industrial facilities along the North Branch of the Susquehanna River. The Paxinos/Shamokin area is also expected to benefit from expanded rail freight capabilities of the local carrier. Regional rail service will be severely impacted if rising fuel prices place any sudden upsurge in demand for services to replace motorized highway carriers.

### Bus.

Local bus service between Sunbury, Northumberland and Selinsgrove was discontinued in the 1990's. Trailways provides limited regional service with stops in Sunbury, Milton, Watsontown, Shamokin and Mt. Carmel in Northumberland County and Danville in Montour County. Service is generally available to Williamsport and Harrisburg where connections to all other points maybe made. Bus systems would quickly overwhelmed if private automobile travel would be diminished because of fuel shortages and/or high fuel prices.

### Air.

The Penn Valley Airport in Selinsgrove, the Northumberland/Montour (Danville) Airport in Riverside and the Northumberland Co. Airport near Paxinos have all extended their runways to accommodate larger light aircraft, but cannot accommodate larger commercial aircraft. As such, no significant ability to offer any substantial commercial passenger air traffic exists. The small light aircraft airport on Packers Island in Upper Augusta Twp. has the unique capability to land seaplanes, but is landlocked and cannot expand. The potential for light aircraft to use the facility to access adjacent recreational and camping facilities is recognized but significant expansion of services is not planned by the owner.

### Transportation Improvements.

Various state and federal transportation programs provide for the programming and implementation of public transportation improvements. Highway and road improvements begin with the placement of candidate projects on PennDOT's Twelve Year Transportation Program. State law requires that for major capital improvements projects to receive State funding approval, they must first be approved on the Twelve Year Program. The Twelve Year Plan considers both highways and bridges developed at the County level by Northumberland County, in cooperation with local municipalities and PennDOT. The Twelve Year Transportation Program is updated at two year intervals and only those projects placed in the first four year period of the Twelve Year Plan are considered High Priority projects for funding approval and are referred to as the Transportation Improvement Plan (TIP). The State Transportation Commission (STC) is responsible for formal adoption of the Twelve Year Program based on the planning and recommendation of the Local Development District (LDD). SEDA-COG acts as the LLD in Northumberland County. Recommendations for addition to the RIP by SEDA-COG comes from the County and the municipalities. Review of the current Twelve Year Program at the Montoursville District Office of PennDOT disclosed only the renovation and resurfacing of the Snyderstown Road from Sunbury to Snyderstown Borough's western border as an included (but not yet funded) project in Upper Augusta Twp.

## **COMMUNITY FACILITIES AND UTILITIES**

## **COMMUNITY FACILITIES AND UTILITIES**

### **PUBLIC EDUCATIONAL FACILITIES**

Shikellamy School District (Facilities serving the Joint Municipal Planning Comm. area)

Chief Shikellamy Elementary School (338 Memorial Drive, Upper Augusta Twp.)

Oaklyn Elementary School (115 Oak Street, Upper Augusta Twp.)

C. W. Rice Middle School (4th & Hanover Sts., Northumberland)

Sunbury Middle School (115 Fairmount Ave., Sunbury)

Shikellamy Senior High School (6th & Walnut Sts., Sunbury)

Shikellamy Administrative Center (Island Park, Upper Augusta Twp.)

The Shikellamy School District Plan is the governing document covering projected needs and recommendations for the public schools in the Joint Municipal Plan area. The most recent (current) update to facilities has been to the Shikellamy Senior High School. The Oaklyn Elementary School was expanded in the 1990's and has taken the modestly increased elementary student population from Rockefeller and Upper Augusta Twp. and Snyderstown Borough. The administrative center relocated to a former church facility in the Island Park area of Upper Augusta Twp. in the 1980's from its previous location about 2 blocks away.

### **HEALTHCARE (HOSPITAL) FACILITIES**

Sunbury Community Hospital

The sale and conversion of Sunbury Community Hospital from a non-profit entity to a for-profit entity owned by an out of state corporation has at least temporarily assured the area of a standing broad service hospital with its attendant in-patient and out-patient services. Other larger health care facilities in the region (primarily Evangelical Comm. Hospital and Geisinger Healthcare System) draw significant numbers of patients from the area and are expected to continue to do so.

### **PARKS AND RECREATION FACILITIES**

Neighborhood Parks & Playgrounds

Currently, the only neighborhood park listed in the community facilities inventory is the small playground behind the municipal building in Snyderstown, which used to be the playground for the one room schoolhouse that is now the municipal building. The playground equipment was recently modernized through a grant obtained by Snyderstown Borough. The City of Sunbury maintains several neighborhood playgrounds - two of which are largely supported by private foundation funds.

Community Parks & Playgrounds

School playgrounds at present constitute the bulk of recreational areas meeting playgrounds' standards in Upper Augusta Twp. but are limited as to access and times of use. Sunbury Memorial Park with the Sunbury Youth and Community Center, and the YMCA provides a broad array of recreational activities.

### Shikellamy State Park

This state park is largely located in the floodway/floodplain on Packer's Island and offers boating, swimming, picnicking, bicycling and walking facilities. It is open year around, but access is largely limited to daylight hours. Access via Rt. 147 is convenient to users.

### Floodway/floodplain Camping Areas

Upper Augusta Twp. through its zoning of federally designated floodway/floodplain areas along the Susquehanna River as suitable for certain recreational uses (controlled by ordinance) offers private land owners in those areas possibilities for land development to accommodate non-permanent camping facilities.

## FIRE PROTECTION FACILITIES

### Upper Augusta Twp. Volunteer Fire Company

Sunbury, Stonington and Upper Augusta volunteer fire companies currently offer quick response units covering the Joint Municipal area, supplemented by agreements with other nearby units such as Riverside and Elysburg. The Upper Augusta Twp. Volunteer Fire Co. has modern equipment, and a cadre of well-trained volunteer firefighters, but has indicated that they need and are actively recruiting additional volunteers.

## MUNICIPAL BUILDING FACILITIES

### Snydertown Boro. and Upper Augusta Twp.

Both these municipalities have municipal buildings with limited space for public meetings and governmental functions. Snydertown Borough is planning to make their building handicapped accessible and with in-house toilet facilities in the near future. Limited parking is available at both municipal buildings although negotiations are continuing by Snydertown Borough to purchase an adjacent property, which would alleviate parking and access issues.

## SEWER AND WATER SYSTEMS

### Snydertown Borough

The borough center area has been sewered since the 1994 but expansion of this system is not being contemplated at this time.

### Upper Augusta Twp.

The Upper Augusta Twp. currently operates the sewer facility at Mt. Pleasant. This facility is nearing the end of its projected life and is an experimental unit, which does not conform to current standards from which it was exempted at the time of its construction. It does not have the capability to expand its number of hook-ups. The Sunbury Municipal Authority actually services the Hamilton and portions of Oaklyn in the Township through contractual agreements with the U. A. Twp. Municipal Authority. Residences on Packer's Island are now serviced for both water and sewer through the Twp. Authority with the sewer being tied into the City of Northumberland's sewage treatment facility. The Shikellamy Ave. - Fourth Street area of the Twp. is currently being integrated into the City of Sunbury's system. Projected needs for sewerage include the Mile Hill area from the City border to the PPL power lines and the Mt. Pleasant area. Possible extension out the Snydertown Road to the vicinity of the former Odd Fellows Orphanage for water and sewer also needs to be considered. The Sunbury Municipal Authority has indicated that they are capable of expansion to include some of the same areas of the Township.



## COMMUNICATION FACILITIES

### Wireless Communication Facilities (microwave and cellular towers)

These areas of communication technologies have not been addressed in previous comprehensive planning efforts by the joint municipal planning committee and currently are not regulated by the municipalities. Four such towers have been erected in Upper Augusta Township - one in a residential zone. Model regulatory language will need to be investigated, adopted and implemented to meet safety and aesthetic concerns of the municipalities' citizens.

## **POLICY DETERMINATIONS AND RECOMMENDATIONS**

## **COMPREHENSIVE PLAN GOALS AND OBJECTIVES**

### **GENERAL PHYSICAL, ENVIRONMENTAL AND ECONOMIC GOALS AND OBJECTIVES:**

- Conserve the unique physical features of the Region (river banks, mountain ridges and slopes, stream valleys and woods) that characterize central Pennsylvania.
- Make maximum effort for continuance of agriculture as a major part of the Region's economy and life.
- Maintain standards of development for all land uses, which will prevent pollution, or despoilation of the environment.
- Focus residential, commercial and industrial development into areas served or to be served by appropriate transportation systems taking into account the increasing economic costs of all transportation systems.
- Encourage a variety of residential housing, suitably different in type and cost, to provide for all families regardless of size and income.
- Encourage concentration of housing in residential areas at densities sufficiently high to make efficient use of community facilities, utilities and supporting commercial services.
- Encourage concentration of commercial uses by function. Daily shopping and services facilities should be located at sites that can best serve residential neighborhoods with good access and adequate parking. Major shopping facilities and highway commercial facilities should be located in selected and confined areas adjacent to arterial highways.
- Encourage location and growth of compatible commercial and light industry facilities within the Region to strengthen the economic base while guiding such growth into areas having locational advantages for the proposed uses but on a non-interfering basis with existing local land uses.

## **FUTURE LAND USE PLAN**

## LAND USE PLAN

The land use plan includes compilation and analyses of all land uses and development — past and present as well as proposed future land uses within the region. It designates areas thought best suited for agricultural, residential, commercial, industrial, open space and public uses of land. The choice of general location and extent of future land uses is based upon general planning principles, existing land uses, land availability, local population, economic factors and community goals and aspirations.

The categories of land use utilized in the multi-municipal land use plan of Snyderstown Borough and Upper Augusta Township are listed and defined as follows:

### Agricultural Areas

Purpose — To preserve and protect areas of sustainable agricultural productivity (including forestry) while permitting areas of marginal and sub-marginal productivity for future development.

Description — In the better agricultural areas, new construction should be limited to agricultural uses and agriculture related uses. In marginal and sub-marginal areas, controlled low-density residential and limited industrial (especially agriculture related) uses would be permitted in anticipation of limited potential growth development.

### Open Space and Conservation Areas

Purpose — to protect areas either topographically limited in development potential or areas of natural and scenic resources.

Description — Included in these areas are floodways, floodplains, wetlands, steep slopes and heavily wooded sections. These areas should be protected by ordinance although non-developmental uses of these areas for seasonal uses and activities such as parks, recreation and natural reserves may be permitted. Some wooded areas may allow low-density single-family development after careful site study

### Residential Areas

Purpose — To delineate and/or establish areas where residential growth is occurring or should occur, both now and in the near future.

Description — The areas chosen are those with current or expected future access to public services and of location where construction is feasible and adverse impacts of such development can be controlled. Of particular importance are sanitary sewers, potable water supplies, storm water runoff control and access via public streets. Permitted uses could include any or all residential uses (single family, multi-family, mobile home parks) plus associated support uses (schools, parks, utilities, etc.).

### Future Residential Areas

Purpose — To establish areas where a second stage of residential growth should occur. These areas should be made available for development contingent upon sanitary sewer installation, access to adequate water supplies, provisions for storm water runoff management and access via public streets.

Description – The same as for residential areas except that more emphasis could be given for planned residential development such as cluster development and multi-family housing units.



### Limited Residential Areas

Purpose – To re-organize areas of residential development wherein problems limiting or preventing further residential or other development are or will be present.

Description – Growth in these areas should be discouraged. Public and/or private systems/facilities (such as sanitary sewer systems, etc.) should be planned for to correct the problems, but the size of such systems/facilities should be limited to cover existing development unless such installation or expanded installation would convert the area to desirable compatible development.

### Village Centers/Convenience Commercial Areas

Purpose – To recognize and re-organize areas of existing early rural residential settlement which may have commercial and residential growth potential.

Description – These areas should continue to serve as social and economic centers in their respective municipalities. Residential, compatible commercial and institutional uses should be encouraged. Commercial uses serving the general and surrounding community and needed on a day-to-day basis should be permitted (food, drugs, hardware, restaurant, etc.) as well as support commercial enterprises such as agricultural equipment sales/repairs where agriculture is the dominant land use in the adjacent area. Public utilities such as sanitary sewer systems should be installed with expanded capacities anticipated if projected growth is expected.

### Future Highway Commercial Areas

Purpose – To provide areas for commercial development to serve traffic along new, relocated or improved state highways such as the potential relocated and improved Pa. Rt. 61.

Description – These areas should be exclusively commercial and oriented to access by automobile, bus or taxi. The determination of precise location, boundaries and access should follow final highway design.

### Future Industrial Areas

Purpose – To designate areas having potential for future industrial activity.

Description – Currently, no areas meet the criteria necessary for establishment of a light or heavy industrial park site with adequate access to transportation such as railroad and the interstate highway system along with favorable site characteristics, sanitary sewer system, adequate water and economic incentives. The potential for a relocated and improved Pa. Rt. 61 could change the current assessment, but is dependent upon future decisions made by the Pa Dept. of Transportation

### Public Uses

Purpose – to designate those public uses such as schools, municipal buildings, utilities, fire halls and other support facilities necessary in the community.

Description – Needs assessment, location and operation of public facilities and services are usually dictated by independent or quasi-independent entities such as school boards for schools, municipal authorities for sewer and water utilities, etc.. The plan acknowledges the use of land for such facilities, but does not set the precise location, boundaries or access to such facilities that may be built in the future.

## AGRICULTURAL AREAS

### Proposals:

**Preservation of Agricultural Resources:** The Plan recognizes that only certain areas of the region have strong agricultural potential, but also recognizes that future local agricultural production is expected to be expanded and diversified as costs of transportation necessitate a return to regional and local sources of foodstuffs. In order to maximize yields and economic returns, concentrated agricultural production in the form of concentrated agricultural production facilities such as egg and chicken production, large animal feeding facilities (cattle, swine, etc.), year around commercial greenhouse crop production, dairy herd expansion and the agricultural product processing and storage facilities will need to be planned for. Recent revisions to the nutrient and sedimentation guidelines and regulations in reference to effluent discharges from farming operations including changes to stormwater management requirements monitored by the Pa. Department of Environmental Protection as part of the Chesapeake Bay Watershed initiative have imposed additional requirements on agricultural operations which impact decisions about the type of farming operations farmers and landowners will make. Forestry as a long-term type of agricultural production is expected to undergo a transformation to become a renewable source of raw materials for production of plastics, chipboard, and alternative fuels to replace dwindling petroleum supplies. Land that is suitable in physiography, soils and of sufficient acreage to produce forest products will need to be protected from residential development where appropriate.

**Economic Alternatives:** The Plan recognizes a general decline in agricultural production in Northumberland County and assumes that much of the land currently in agricultural uses (including forestry) will continue at least in the near term to be developed for non-agricultural purposes. The Plan proposes that a variety of land uses be utilized as compatible alternatives in those areas marginally suited or unsuitable for continued agricultural production.

### Discussion:

The proposals for agricultural use are obviously in conflict with current trends. Protection of agricultural land in the face of current economic declines in the general agriculture industry will not sit well with farmers who already have or will discontinue the use of their land for agricultural purposes and wish to sell their land or use of their land and buildings for other more monetarily rewarding purposes. The desire of the farmer to change the use of his/her land is understandable as he/she must earn a living and prepare for ultimate retirement. Even the Commonwealth of Pennsylvania has recognized the need for preservation of productive farmland and has enacted several laws in the recent past to preserve quality farmlands and protect farming operations. These initiatives include Right to Farm, Agriculture Security Areas, Tax Relief by Preferential Property Assessment and Purchase of Development Rights legislation. Nonetheless owners of properties in agricultural areas cannot be denied the use of their land; hence alternative uses or relief must be provided. Some of the new uses of land for concentrated agricultural production will potentially conflict with adjacent and nearby neighbors and communities; therefore measures such as buffer zones, vegetative screens and upwind/downwind location restrictions for agricultural related land uses are addressed in the plan.

Agricultural and Agricultural Holding Areas: Areas in Upper Augusta Township and Snyderstown Borough currently in use for agricultural production and/or designated as Agricultural Security Areas under Commonwealth of Pennsylvania definitions as well as U.S. Soil Conservation Service agricultural soil classes 1, 2 and 3 areas currently lying fallow should be protected as agricultural lands. Lands too steep for the usual grain crop production are often ideal for orchards and pastures and consideration should be given to the preservation and/or expansion of these agricultural uses in suitable areas. While recognizing the obvious conflict with current economic trends, the Township and Borough should take whatever steps possible to encourage the continuance of agriculture here. The plan recommends the following steps.

- A. Zoning: The Township and Borough should impose virtually no restrictions on agricultural uses greater than those established under Right to Farm regulations set by the Commonwealth and should encourage all types of agricultural and agriculturally-related uses consistent with the same regulations. To further encourage the transition of farm ownership within farm families and to encourage continuing agricultural uses of farm lands the current zoning provisions for two family farm units should be continued.
- B. Tax Relief. The Township and Borough should encourage agricultural land owners to obtain tax relief through preferential property assessment currently available in Northumberland County.
- C. Alternative, Intensive and Agricultural Related Land Uses: The Township and Borough should investigate the possibility of attracting intensive agricultural uses (i.e. greenhouses, mechanized egg production, animal husbandry, nursery and truck crops, etc.) as supplements or alternatives to conventional crop farming. Improved transportation accessibility via Interstate Routes 80 and 180 as well as the improved U.S. Route 15 should make such uses increasingly desirable. In areas where soils and/or topography limit the agricultural capabilities, but are not adjacent to high density residential areas, it is proposed that commercial activity directed to the sale or processing (i.e. feed milling, milk products processing, grain storage, etc.) of agricultural products produced on the premises or recreational activities be encouraged as uses to replace or supplement agricultural activity. Low-density residential development in such areas can be permitted when the economic potential for agricultural uses is marginal or inadequate.
- D. Preferential Agricultural Land Use Priorities: The problem of the relatively small size of most typical farm units in the region as individual economic entities lessens their capability to compete with larger units. The Township and Borough should encourage farmers to combine their operations and product sales through cooperative arrangements and take advantage of protections through the Commonwealth's Agriculture Security Act and Right to Farm Act. Further the Township and Borough should be alert to assisting farmers in combining their holdings and/or preventing division of their holdings when public roads are being located, relocated or rerouted.

## OPEN SPACE AND CONSERVATION AREAS

Proposals:

Conservation: The plan recognizes the Region's unique natural assets as well as inherent limitations to development and proposes that the Susquehanna River banks and floodways, minor stream valleys, wetlands and all significantly wooded areas unsuitable for development be protected from development.

Performance Standards: To prevent environmental despoliation, the plan proposes legislative action in each municipality to establish air, water and noise performance standards in conformity with requirements of the Commonwealth's constitutional environmental protection amendment of 1976. Performance standards for control of surface water drainage both during and after development must meet Commonwealth standards as a minimum. Development in designated floodways of the Susquehanna River and its tributary streams must continue to be prohibited.

Discussion: (See pages 94-97 in previous Comprehensive Plan)

## RESIDENTIAL AREAS

Proposals:

Residential Growth: Snyderstown Borough and Upper Augusta Township have experienced only modest growth in number of new residences built over the last quarter century and an aging population reflecting a loss of young people staying in the area. At the same time, Sunbury and Northumberland County have experienced steep declines in population over the last half century largely because of loss of manufacturing and mining industries. The adjacent municipalities of Rockefeller Township and Rush Township have seen steady growth in new housing and population, but especially in the case of Rush Township, the population and housing growth is unrelated to job opportunities in the Sunbury area. While the area lies at the perimeter of a 50-mile radius (air miles) of the Harrisburg metropolitan area, little growth related to commuter bedroom growth has been evident. The increasing cost of transportation fuels is expected to adversely impact long distance commuting; hence there is diminished expectation for substantial residential growth in this sector. Accordingly, the plan proposes only a continuing modest residential home growth in both Snyderstown Borough and Upper Augusta Township. The Plan proposes to provide for residential development in Upper Augusta Township in areas where sanitary sewer, water and runoff management can be provided. For Snyderstown Borough outside the Borough center, low-density residential housing with on-lot water and sewer systems is expected to continue. With available but limited expansion capabilities of the municipal sewer system serving the Borough center, residential improvement and development are encouraged.

Staged Growth: In order that public services and utilities be provided economically and in a logical progression, the Plan proposes that residential growth in Upper Augusta Township be staged, starting with those areas immediately adjacent to Sunbury where sanitary sewer, water and runoff management can be quickly made available.

Limited Residential Areas: Several residential areas and villages exist in the area surrounding Sunbury that have significant limitations to further development. The Plan proposes that development in Mount Pleasant, Packers Island and the town center of Snyderstown be limited in expansion so as not to exceed the capacity of existing sanitary sewer systems. Future expansion in these areas would be contingent upon expansion of the current sanitary sewer systems or access to a system with larger capacity. The Packers Island residential area is limited in any expansion because the Susquehanna River floodway/floodplain encloses it on three sides and the remaining side is occupied by Shikellamy State park and existing commercial/industrial uses. The Plan proposes that those areas of Packers Island within the designated Susquehanna River floodway/floodplain be reserved for public and/or private seasonal recreational uses with no permanent structures permitted to be built in the floodway/floodplain areas. The Plan proposes that further residential development in the Poor House Hill area of Upper Augusta Township be contingent upon provision of sanitary sewerage, but of a capacity limited to serve existing or modestly expanded development. The Oaklyn area of Upper Augusta Township is experiencing difficulties in some areas with adequacy of potable water supplies from on-site sources. The Plan proposes that further residential or other development be contingent upon demonstration of availability of adequate potable water supplies.

Residential Variety: To provide alternatives to single family housing and to provide logical centers for community activities, an intensification of land uses is proposed in and/or near the central areas of Snydertown, Packers Island and Oaklyn/Hamilton (at junction of Rtes. 890 and 61).

Residential Quality: To maintain both existing and future investments in the region's housing stock, strong performance standards and development requirements are proposed for inclusion in each municipality's Zoning Ordinance and Subdivision and Land Development Regulations. The Uniform Building Codes adopted by the Commonwealth should apply to all new residential housing developments.

Residential Location: The Plan recognizes that barring major technological developments in vehicular transportation, the continuation of widely scattered low-density residential housing development should be discouraged. Guided residential development toward higher density development in close proximity to services, conveniences and alternative transportation is recommended. The Plan specifically recommends that initial residential development be focused in two areas adjacent to Sunbury where municipal sewerage, water and runoff management can be made quickly available. The two areas are at the base of Mile Hill Road and along Rt. 890 (much of the development would occur in Rockefeller Township). Lesser priority development would be focused along Route 61, but would be contingent upon demonstrated adequacy of potable water supply and sanitary sewerage.

#### Residential Styles:

Single family housing is the most popular type housing outside of the metropolitan city environment and can be described as follows: It has adequate light and air; room for parking, play, gardening and other outdoor uses; it enjoys access to the street and to its own private ground; it can be built, maintained, remodeled, bought and sold independently; it symbolizes the individual family. The difficulties of single family housing at sufficiently high density are well known; sparse or expensive community services, poor transportation, high maintenance costs and loss of good agricultural land. Single family homes at densities higher than five or six dwellings per acre lose many of the advantages of the well designed single family home; yard space, privacy, noise control, and individuality.

Zoning ordinance defined lot sizes for single-family dwellings in residential areas of Upper Augusta Twp. currently vary from 6000 sq. ft. in Village Centers to one acre in Suburban Residential areas with approved on-lot sewerage systems. The Plan proposes a basic lot size of one acre for single-family houses that have approved on-lot sewerage systems. The Plan recommends that a 10,000 (or greater) minimum sq. ft. minimum lot size be established for single-family dwellings having access to a sewer facility in residential areas. In Village Centers a minimum lot size of 6,000 sq. ft. is recommended where access to a sewer facility is available. By continuing this low lot size requirement, future lot sizes will more closely reflect those already established. The scale of the Village Centers would allow a pedestrian way of life and overall community activity levels could be increased.

In residential areas having slopes in excess of 10%, cluster subdivisions should be considered. The cluster development concept places single family and/or multi-family houses or row houses on smaller lots than normally required by local zoning regulation, but offsets the higher density with requirements for reserved open space for recreation, natural settings or open-air community activities. Access to sewer and water facilities is required for cluster development.

Multi-family dwellings include duplex houses, row houses, apartments, and condominiums. Such types of dwellings generally require access to sewer and water facilities. The Plan proposes that multi-family dwellings be encouraged and directed to areas where commercial services are available and where sewerage systems and water systems are in place or can be made readily available. A maximum density of twelve family dwelling units per acre is recommended.



Mobile homes are often strongly objected to by conventional home owners who view them in the historic context of travel trailers for temporary housing with the characteristics of limited facilities, small size, shoddily built, unattractiveness and depreciating nearby property values. Current manufacturing standards of manufactured homes or wholly prefabricated houses, although different, meet or exceed the parallel uniform construction codes for residential housing. It is not the manufacturing process or design of the "mobile home" which determines whether a "mobile home" is a single family or multiple family dwelling, but the ultimate site location. A single "mobile home" upon a single conventional lot is a single-family dwelling. Likewise, a number of "mobile homes" arranged in a mobile home park at high density and with little private outdoor space is treated as a multi-family dwelling of special character. The Plan recommends the following policies for mobile homes: Mobile homes, manufactured homes and wholly prefabricated houses used as single family dwellings on a conventional lot are treated as any other single family dwelling on the site. Multi-family mobile homes and mobile home parks are regulated separately but should be planned for in the context of low cost permanent multifamily housing.

Except for storage of personal trailers, travel trailers and travel trailer parks do not have a role in residential areas, but should be provided for in more remote designated camp and park sites.

### COMMERCIAL AREAS

Proposals:

Convenience Commercial Centers: To help carry out the region's overall goal of developing as residential community suburbs of Sunbury, convenience commercial activities will primarily be concentrated in the Oaklyn/Hamilton and Snyderstown areas.

Highway Commercial: Recognizing the region's responsibility to provide commercial services to the general public, sites for highway commercial development are provided on Packers Island, Shikellamy Ave. and at the junction of Rtes. 890 and 61 in Upper Augusta Twp.

Site Characteristics: The size, shape, topography, load bearing qualities, availability of utilities, street conditions, existing structural conditions and general site amenities must be considered. In general, all three sites have adequate characteristics. One important exception is sanitary sewerage and storm water management at the Shikellamy Ave. site which have as yet not been completed. Other amenities and facilities such as sidewalks and lighting should, when appropriate, be provided by prospective developers. Site size is a problem in Snyderstown where only a few suitable contiguous lots are available. Existing structures often have little or no street frontage; hence although conversion of existing structures to commercial usage is considered the best alternative, attention will have to be paid to provision of adequate off-street parking.

Demand Characteristics: Highway Commercial uses can be functionally separated into three categories according to different public demands

Individual stores or businesses such as automobile sales and service, farm equipment, and other similar stores in a semi-rural or suburban setting are attractions in themselves and draw customers making a single purpose trip. Since locations along major highways are easily accessible, they can be highly desirable additions to a community. The three sites mentioned are recommended for these types of uses.

Highway services cater to motorists traveling from one place to another or close to destinations. Uses commonly included in this category are restaurants, gas stations and other drive-in roadside services. Much of the demand for such facilities is directly dependent on the amount of traffic using the highway. Uses such as these are already present at one or more of the three sites mentioned.

Shopping centers are basically a collection of retail stores. A shopping center has a location on a highway, but is pedestrian in nature, because of the close grouping of the various stores. The centers rely on a relatively large mobile population base to be successful. Except as may occur as part of the previously proposed convenience commercial centers, the Plan proposes no new shopping center development

#### NATURAL AND HISTORIC RESOURCE PROTECTED AREAS.

Natural and historic sites of unique character when so designated are to be protected from development to the extent not preempted by Federal and/or Commonwealth law. Besides prime agricultural land, woodlands, flood plains/floodways and wet lands already addressed, aquifer recharge areas, unique natural areas and historic sites should also be protected. Protective measures may not however, exceed the requirements imposed under the following:

- (i) Act of June 22, 1937 (P.L. 1987, No. 394), known as "The Clean Streams Law"; (FN2)
- (ii) Act of May 31, 1945 (P.L. 1198, No. 418), known as the "Surface Mining Conservation and Reclamation Act"; (FN3)
- (iii) Act of April 27, 1966 (1St Sp. Sess., P.L. 31, No. 1), known as "The Bituminous Mine Subsidence and Land Conservation Act"; (FN4)
- (iv) Act of Sept. 24, 1968 (P.L. 1040, No. 318), known as the "Coal Refuse Disposal Control Act"; (FN5)
- (v) Act of Dec. 19, 1984 (P.L. 1140, No. 223), known as the "Oil and Gas Act"; (FN6)
- (vi) Act of Dec. 19, 1984 (P.L. 1093, No. 219), known as the "Noncom Surface Mining Conservation and Reclamation Act"; (FN7)
- (vii) Act of June 30, 1981 (P.L. 128, No. 43), known as the "Agricultural Area Security Law"; (FN8)
- (viii) Act of June 10, 1982 (P.L. 454, No. 133), entitled "An act protecting agricultural operations from nuisance suits and ordinances under certain circumstances"; (FN9)
- (ix) Act of May 20, 2003 (P.L.12, NO 6), known as the "Nutrient Management Act", (FN10) regardless of whether any agricultural operation within the area to be affected by the plan is a concentrated animal operation as defined by the act.



## COMMUNITY FACILITIES AND UTILITIES PLAN

The planning for community facilities involves the needs and locations of public buildings and services. The objective of the community facilities plan is to reserve sufficient land in the proper location(s) to provide the optimum future service for all areas of the community. The plan specifies future public needs for educational facilities, recreation areas, municipal and protection services, buildings and utilities.

Regardless of whether or not each municipality has direct jurisdiction, the land use pattern of the future will require certain basic facility needs. These should be met through individual community efforts where practicable or, where necessary, through cooperation with adjoining municipalities or other responsible public bodies.

The recommendations that follow are a result of the background analysis and, upon fulfillment, will constitute each municipality's contribution to its future development. Map \_\_\_\_ in the Plan's appendices graphically identifies the location of the recommended facilities.

### EDUCATIONAL FACILITIES:

The community facilities background survey reviewed the consolidations and expansion of public schools in the Shikellamy School District over the past decade as well as the relocation and expansion of public administrative support facilities on Packers Island. The expansion and relocation of private post-graduate educational facilities as well as the relocation and expansion of alternative private sectarian and non-sectarian educational facilities were also noted although no active ones are currently located in either Upper Augusta Twp. or Snyderstown Borough.

This Plan supports the Shikellamy School District Plan, which currently does not include any further consolidation of schools, but is considering renovations to the middle school and further renovations to outdoor athletic facilities associated with the high school.

### PARKS AND RECREATION FACILITIES:

An important responsibility of any community is its parks and recreation system. The need for, and creation of formal recreation areas in the region have grown with time, making further thought and consideration necessary. The abundance of land areas in the floodways/floodplains of the Susquehanna River and its tributaries, which are restricted from conventional development, but have potential for both public and private recreational uses, is addressed by the Plan. The impact of rising transportation fuel costs is expected to focus recreational activities to more local and regional facilities. In addition, the presence of existing State, community and privately owned recreational facilities in the region lessens the need for additional duplicative facilities in the region's communities. The following is the proposed plan for parks and recreation:

Standards: General standards and scales of operation and service in any park and/or recreation system have been previously discussed and sources for additional information listed in the Plan's appendices. The following are standards recommended for the Township and Borough:

Neighborhood Parks and Playgrounds: The neighborhood playground and/or park are generally an active recreation area serving children in a neighborhood. Size can vary from an acre up depending on the types of recreational/playground activities offered. The facility should be within walking distance of most homes and ideally located adjacent to an elementary or middle school. The facility site should not be adjacent to a high traffic road/street nor have the access to it from the neighborhood requiring crossing by foot of a high volume and/or high speed traffic street.

The facilities and equipment should include some or all of the following:

Play apparatus for elementary school children

Multiple-use paved areas for court games – basketball, volleyball, skating, etc.

Field games area – softball, football, soccer

Quiet area with grass, trees, benches

Free play space, open grasses space

Area for small children with tot lot facilities.

The space for a tot lot can be allocated as a separate portion of the neighborhood park. This facility should provide both active and passive recreational activities for small children principally of pre-school age.

Community Park and Playfield: Because of the relatively sparse population outside of the City of Sunbury and its immediately adjacent suburban areas (Hamilton, Oaklyn and Packers Island), community park facilities should be shared. The community park is designed to provide both active and passive recreational opportunities for all age groups. Its main active features are facilities that either require more space or are too expensive for provision at a playground site. Common facilities are baseball fields, football fields, swimming pools, skating rinks and tennis courts. Off-street parking, night lighting and toilet facilities should be included. The size of a playfield generally is in excess of 10 acres. The preferred location is adjacent to a high school or a community center, centrally or closely situated and easily accessible to the community.

Open Space Trails and Natural Park Areas: The abundant areas of floodways/floodplain lands adjacent to the Susquehanna River and its larger tributaries that are restricted from conventional development, offer potential sites for trails and natural park areas, but may require acquisition of the land or long term lease for use as recreational sites. Current "greenway" initiatives offer subsidized acquisition possibilities along the main stem branches of the Susquehanna River. Volunteers from the community can often be recruited to assist in the clearing and maintenance of such recreational sites.

Recommendations: Existing park and recreational facilities were inventoried in the community facilities inventory facilities survey. The following are recommendations for additions and improvements to the existing park and recreation facilities or development of shared facilities:

**Sunbury Municipal Park and Charles Degenstein Recreation Center:** This is the major community recreational facility in the region. The Sunbury Youth and Community Center, The YMCA, the Degenstein Recreational Center, a swimming pool, an ice-skating rink and various court and field game areas are already provided. The site lies adjacent to the Chief Shikellamy Elementary School in Upper Augusta Township although separated from the school by a two-lane street with low speed restrictions for vehicles placed on it. The Plan recommends that this site's access safety continue to be protected by limiting the speed and volume of vehicular traffic on the access road between the school and the park.

**Susquehanna Greenway Trail:** Acquisition of lands for development of recreational foot trails along the Susquehanna River in concert with the Commonwealth's "greenway" initiative to develop the Tulpehocken Trail System in the region and south beyond Harrisburg is recommended by the Plan. A program to develop and integrate recreational trail maintenance volunteer groups with adjacent communities participating in the Greenway Initiative is also recommended.

Snydertown Municipal Playground: With the expected acquisition of additional land adjacent to the current municipal building, expansion of the current small playground area and parking area is recommended.

#### COMMUNITY CENTER FACILITIES:

While churches, schools and municipal buildings occasionally offer sites for community activities, many communities are recognizing the need for a permanent site for regularly scheduled community supported activities. This has been most noticeable in the rising number of senior activity centers associated with the rising average age of our populations – especially in the retired citizen group. Allocating space within a municipal building or municipal owned facility for citizen group use is often the best initial way for small communities with limited resources to handle the issue. In rare instances such as in the Mt. Pleasant community, where a former schoolhouse was acquired, the situation is easily resolved as long as a cohesive and committed group of community volunteers maintain the facility. The Plan recommends the following:

The municipal buildings in both Upper Augusta Township and Snydertown Borough offer meeting space on occasion and as available to small citizen groups for meetings and organized activities.

#### MUNICIPAL BUILDING AND PROTECTIVE FACILITIES:

The greatest single facility need in each municipality is for a centrally located and a well accommodated municipal building. Such a building and site should ideally house all of the administrative functions, maintenance equipment and materials storage. With all functions concentrated at one point, administrative control can be most efficient. Fire protective services should be located in an easily, all-weather accessible site with good road access capabilities to all areas of the municipality. The facility should be able to house all of the fire protection mobile equipment as well as all ancillary equipment and have direct communication capability with its personnel anywhere in the municipality at any time.

Currently, Upper Augusta Township's municipal building facility does not have the necessary administrative office space, maintenance equipment and materials storage space, and would benefit from expanded administrative storage space, expanded meeting space and landscape screening to make the materials storage area less obtrusive as viewed from Cold Run Road. Consideration of expanded administrative office space, maintenance equipment storage, materials storage space, administrative storage space, expanded meeting space and landscape screening with evergreen trees between Cold Run and Cold Run Road are proposed.

With the acquisition of the adjacent land beside the Snydertown Borough Municipal Building, addition of more parking plus the construction of a small addition to the existing Municipal Building with toilet facilities and handicapped access, are improvements, which although in the planning stages, may become a reality soon. Expansion of playground facilities at a newly expanded municipal building site has already been alluded to. While fire protection facilities would appear beneficial, the conclusion that the Borough would not be able to sustain a volunteer fire unit prevents recommendation for consideration of this desirable asset.



## SEWER AND WATER SYSTEMS:

Plans for serving the region's sanitary sewerage system have been proposed in the Northumberland County Master Plan and the Northumberland County Water and Sewer Plan. These plans are detailed in the Northumberland County Comprehensive Plan as listed in the appendices. In addition the Pa. Department of Environmental Protection has prepared new guidelines for sewage facilities planning as well as permitting for wastewater treatment facilities in the Chesapeake Bay Watershed. Documents relating to Pennsylvania's Chesapeake Bay tributary Strategy and Point Source Implementation Plan are listed in the appendices.

While the recent installation of a sanitary sewer system on Packers Island connected to the Northumberland Borough's sewage treatment facility has alleviated problems on the Island, no expansion of its current capacity is available; hence no additional development on the Island can be considered until the Northumberland Borough's sewage treatment facility can be expanded.

The sewage treatment facility serving the community of Mt. Pleasant in Upper Augusta Township is nearing the end of its projected life span, although it continues to function satisfactorily. Current plans propose to repair and maintain the existing system for as long as it remains economically feasible but consideration for extension of the Sunbury sanitary sewer system to Mt. Pleasant along Mile Post Road must be considered as a probable future necessity. The Sunbury sewage treatment facility, with its recent expansion, has the capability to serve both Mt. Pleasant and the proposed residential development at the base of Mile Hill Road. The commercial zoned area along Shikellamy Avenue and North Fourth Streets in Upper Augusta Township currently in the process of being integrated into Sunbury's sewage treatment system has a moratorium on further development until the project is finished and certified. Storm water management construction in the same area utilizing storm water sewers to drain excess storm water is also in the process of being implemented. Further development in the area has been restricted pending satisfactory resolution of the problem.

Snydertown Borough's sewage treatment facility currently has sufficient capacity to allow additional development in the Borough center and nearby properties. This capability helps support the previous recommendation for continued residential and commercial development in the area of the Borough center.

Storm water management using enclosed and open storm water sewer systems remains a critical problem in certain areas of Upper Augusta Township and is a major limiting factor for development in most of those current problem areas especially in the Hamilton/Oaklyn area and the base of Mile Hill Road area adjacent to Sunbury. Storm water infiltration of the sanitary sewer system in the Hamilton/Oaklyn area of Upper Augusta Twp. has resulted in periodic overloading of the sanitary sewer system and until corrected limits further development in the area served by the system. In addition the Pa. Stormwater Management Act 167 has created more guidelines and specifications to be followed and met regarding nutrient and sediment control for stormwater discharges into streams and rivers. Details concerning stormwater management can be accessed through the pertinent documents listed in the appendices.

Adequate on-site potable water supplies area problem in areas of Upper Augusta Township –notably in the Oaklyn and base of Mile Hill adjacent to Sunbury. Further residential or other development in those specified areas that are known to have inadequate on-site potable water supplies is currently curtailed until the problems are satisfactorily resolved.

The Plan recommends the following:

The sanitary sewerage systems proposed by the Northumberland County Master Plan that impact Upper Augusta Township and Snyderstown Borough be constructed as development warrants.

Residential and all other development requiring sanitary sewerage on Packers Island should be held in abeyance until Northumberland Borough's sewage treatment facility is expanded and certified to accept additional sewage input. Residential and all other development requiring sanitary sewerage in the Hamilton/Oaklyn area should continue to be held in abeyance until the problem of periodic overloading of the sanitary sewer system is resolved. Dependent upon satisfactory arrangements for handling storm water runoff from the proposed multi-unit residential development at the base of Mile Hill, extension of Sunbury's sanitary sewerage system and water system will need to be extended from the City's border up Mile Hill. Dependent upon potential renovation and further residential development in the vicinity of the former Odd Fellows Orphanage possible extension out along the Snyderstown Road (SR-4012) of Sunbury's water and sanitary sewerage system will need to be addressed. The Sunbury Municipal Authority has indicated that they are currently capable of expansion to include the above indicated areas of Upper Augusta Township.

#### DEVELOPMENT, CONSERVATION AND PROTECTION OF WATER SUPPLIES

As noted in both the Land Use Plan and the Community Facilities and Utilities Plan, water supply problems already exist and remedial steps including restricted development are proposed in certain areas. Commercial agriculture production may impact water supply sources in those areas designated for preservation for commercial agriculture production, particularly because the proposed Agriculture zoned area is remote from the Susquehanna River and any substantial tributary. This is another reason to limit residential growth in that area which could have to compete for water with the preferred agricultural land use. Although as has been previously noted, there is no significant mining activity in either the Township or Borough, lawful activities such as extraction of minerals may impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.

The Plan recommends in addition to the reliance on potable water supplies for future residential development on water drawn from the Susquehanna River and processed/stored/distributed by the Sunbury Municipal Water Authority, that continuing efforts to restore the quality of water in Shamokin Creek continue and when restored be evaluated as a possible secondary water source for agricultural use (i.e. crop irrigation) on the farming units adjacent to the Creek in both the Township and Borough.

## TRANSPORTATION PLAN

### ROADS AND HIGHWAYS

Highways are planned to serve existing and forecasted or planned regional activities and growth. Travel patterns and hence transportation needs are largely determined by locations of human settlement and activities. People travel to work and personal activities; likewise, goods are moved between activities for service processing or sale. The classification of highways based on their functions that will be endorsed and used in the Plan is based on the National Highway Functional Classification. The goal is the safe, efficient rapid and economical movement of people and goods.

This classification system is defined in the transportation inventory section (Appendix # 3). Included are four thoroughfare types – principal arterial, minor arterial, collector and local. Each thoroughfare type has a different function within the total highway and road system. Principal arterials perform on an inter-regional basis; minor arterials on an intra-regional basis, collectors on a local basis and finally, local roads provide direct access to the collector system and individual properties. To adequately meet their tasks, these highways and roads must be of proper design and protected from encroachment while not unnecessarily adversely impacting adjacent properties and land uses.

Table # 3 (Appendix # 3), Specifies current PennDOT recommended standards for jurisdiction, rights-of-way, number of lanes, cart way widths, shoulders, parking, sidewalks, and access as well as alignment, sight distance and curve design for all major highway/road facilities. Proper design standards for local roads should be specified in local subdivision and land development regulations and where possible should parallel current PennDOT standards.

Recommended improvements to the Township's and Borough's highway and road system are based upon the previously made transportation inventory and the Comprehensive Plan's land use proposals. Map # 2, (Appendix # 3), Highway Plan, graphically shows the recommended highway network for the region which is summarized as follows:

Principal Arterials. There are no principal arterial highways within the Township or Borough, but access to the nearby U.S. Routes 11 -15 and Interstate 80 does affect traffic patterns and road usage within both the Township and Borough. The Township is projected to experience modest increases in traffic on Pa. Rt. 61 once the Selinsgrove Bypass on U.S. Routes 11-15 is completed and direct linkage is established over the Sunbury Bridge with an extension through the Orchard Hills development of Shamokin Dam to the Bypass.

Minor Arterials. Two minor arterial highways serve the region – Pa. Route 61 from Sunbury east toward Shamokin and Pa. Route 147 following the eastern bank of the Susquehanna River. Both highways traverse a portion of Upper Augusta Twp.

- A. Pa. Route 61 is an important access route from the lower Northumberland County communities of Shamokin-Mount Carmel and is one of only a few highways which run southeast/northwest across the grain of the Appalachian Mountains in Pennsylvania offering linkage with Interstates 80 and 81. PennDOT has made the decision that Pa. Rts. 54 - 901 are the preferred access highways to link Interstates 80 and 81 and has accordingly upgraded both roads within the past two decades to facilitate this decision. Previously proposed plans to relocate and upgrade Pa. Rt. 61 have been shelved. Nonetheless, there are needs for an upgrade to certain portions of Pa. Rt. 61 within the Township, which need to be addressed. The highway traverses an area of the Shamokin Creek floodplain in the vicinity of Hamilton where it also passes through a former railroad right-of-way via a former underpass. In the event of floods involving Shamokin Creek, the road is blocked by floodwaters. The road narrows and makes two 90-degree turns within 100 feet and dips several feet in order to negotiate the former underpass. The Plan proposes to, at a minimum, to straighten out the curves in the vicinity of the former underpass and elevate the roadway to eliminate the dip within the former underpass. These

- B. Pa. Route 147 connects both the Sunbury River and Packer Island Bridges and exits south of Sunbury through Upper Augusta Township climbing fairly steeply as it traverses Poor House Hill. An extended climbing lane such as PennDOT created on Pa. Rt. 54 north of Elysburg has been suggested to alleviate the often slow ascent of trucks traveling south on Rt. 147 with cars often strung out behind the trucks. Truck traffic is moderately heavy as Rt. 147 is the primary north-south route on the east side of the Susquehanna River all the way to Dauphin and connects with Pa. Rt. 225 near Herndon and again in Halifax. Further the quarrying operation on Pa. Rt. 225 south of the junction of Rts. 147 and 225 near Herndon contributes significantly to the volume of slow moving heavily loaded trucks on Rt. 147. The Plan supports the proposal to create an extended climbing lane on Pa. Rt. 147 in the Poor House Hill area as described.

Collector Roads. A number of roads are proposed to be continued as collectors and one added in Upper Augusta Township contingent upon upgrading with a bridge replacement. Several of these roadways are proposed for resurfacing and improvement in order to maintain their viability for the future. Even though extensive physical improvement is not financially feasible at present according to PennDOT, it is important to respect the current recommended right-of-way standards contained in Table # 3, (Appendix # 3) in order to preserve and protect sufficient road widths on existing roadways for future improvement.

The collector road classification has been divided into two categories – major collector and minor collector. The major collector, with a higher average traffic volume directly serves the arterial system and more populated areas. Collector road status may also be conferred where a road link critical for emergency vehicle and snow/flood emergency routing between collector roads must be guaranteed. The minor collector is a link between local roads and minor arterials, but the average daily traffic volumes are considerably lower. Current design standards for these two categories are given in Table # 3, (Appendix # 3). Listed as follows and shown on Map # 4 (Appendix # 3) are the recommended improvements for collector roads.

#### East-West Routes

- a. SR 4012 (Sunbury east to Snyderstown) is designated a major collector road. Its function of connecting Snyderstown to Sunbury is obvious, but the upgrade of Pa. Rt. 54 as a primary arterial highway connecting Interstates 80 and 81 makes its function important as an alternative route between Rt. 54 at Elysburg and Rts. I 1-15 and 147 through Sunbury. The Plan supports PennDOT's proposal to rebuild and resurface SR 4012 from Sunbury to and eventually through the Borough of Snyderstown.
- b. SR 4006 (Mile Hill Road) from Sunbury east to Klinesgrove is designated a major collector road. This is the primary east-west access road in Upper Augusta Twp.. It links the Rush Township/Riverside/Danville areas with Sunbury and serves both the proposed Agriculture Security/Reserve area in the northeast corner of the Township and the proposed residential development at the base of Mile Hill adjacent to Sunbury. The most significant concern about this collector road is the steep climb and winding configuration necessary to traverse Mile Hill which poses safety concerns under adverse weather conditions, but no economically feasible alternative is evident except to shunt traffic onto SR 4004 (Mile Post Road) between Sunbury and Mt. Pleasant Road which connects Mile Hill and Mile Post Roads about 2 miles northeast of Sunbury.

- c. SR 4004 (Mile Post Road) from Sunbury northeast to Mt. Pleasant and Mt. Pleasant Rd. is designated a minor collector road. This is the alternate east-west access road to the north edge of Sunbury and the Chief Shikellamy Elementary School and, as noted previously, provides alternate access between Sunbury and the northeast areas of Upper Augusta Twp. should Mile Hill Road at Mile Hill be closed by adverse weather. SR 4004 east of Mt. Pleasant has a significant restriction posed by a narrow bridge with a tight 90 degree turn of the roadway on the east side of the bridge limiting access. This kink makes crossing the bridge difficult or impossible for vehicles with long wheelbases or with long trailers and thus obviates collector road status for this portion of the road. The Plan proposes that this bridge be considered for replacement and the access be corrected to allow passage of longer vehicles. Secondary advantages of this upgrade would allow Mile Post Road to be the alternate access between Klinesgrove and Sunbury when Mile Hill Road is closed in the winter by drifting snow or other adverse weather conditions as well as allowing agriculture related vehicles to better service the proposed Agriculture Security/Reserve area of the Township.
- d. Mount Pleasant Road between Mile Hill Road and Mile Post Road is designated a minor collector road because it is the only hard surfaced road connecting the two collector roads between Klinesgrove and Sunbury and is critical for all-weather access to certain areas of the Township by the Upper Augusta Twp. Volunteer Fire Company.
- e. Cold Run Hollow Road between Mile Hill Road and Snyderstown Road is designated a minor collector road because it is the only hard surfaced road connecting the two collector roads between Klinesgrove and Sunbury and is critical for all-weather access to certain areas of the Township and Snyderstown by the Upper Augusta Twp. Volunteer Fire Company.
- f. Pa. Rt. 61 is designated a major collector road because it serves as a primary connector route between Shamokin/Mt. Carmel and Sunbury as well as an alternate connector between Interstate 81 and U.S. Rts. 11-15 via Sunbury and the Sunbury Bridge over the Susquehanna River. Again the Plan supports the upgrades to Rt. 61 in Upper Augusta Township as previously expressed.

#### North-South Routes –

- a. Pa. Rt. 890 is the major north-south route east of Pa. Rt. 147 in the region. It is designated as a major collector road since it serves as the major access road between Trevorton, and Rockefeller Township/Wolfs Crossroads areas where residential growth has been the greatest of all municipalities close to Sunbury. Rt. 890 traverses only a short distance in Upper Augusta Twp. before entering Rockefeller Twp. but also serves as collector road for the Kirschner Hill area of Upper Augusta Twp. The junction of Rts. 890 and 61 is also the site of a small commercial zoned area serving the Oaklyn/Hamilton and northern Rockefeller Township areas.

Local Roads. Local roads within the Township and Borough consist of all others not specifically designated as collectors on Map # 4, (Appendix # 3) and all those proposed to serve future land development. Improvement of these roads is dependent upon time and circumstances. The initial construction of new local roads in general is the responsibility of land developers, with the guidance of each municipality's Planning Commission and its subdivision and land development ordinance. Each municipality's governing body, however, bears a responsibility for proper maintenance and occasional reconstruction of all dedicated municipal roads. Funding for specific reconstruction projects should be included in each municipality's capital improvements budget.

Schedule of Improvements. The recommended improvements to the roadway network should be scheduled for completion within a twenty year span, since it often takes several years just to get on PennDOT's 12 year plan schedule and to arrange matching funds. The County Planning Commission, SEDA-COG and the respective governing bodies of each municipality should coordinate their programs so that the work to be accomplished can be scheduled to achieve the greatest amount of good and the least amount of inconvenience to the growth and development of the region.

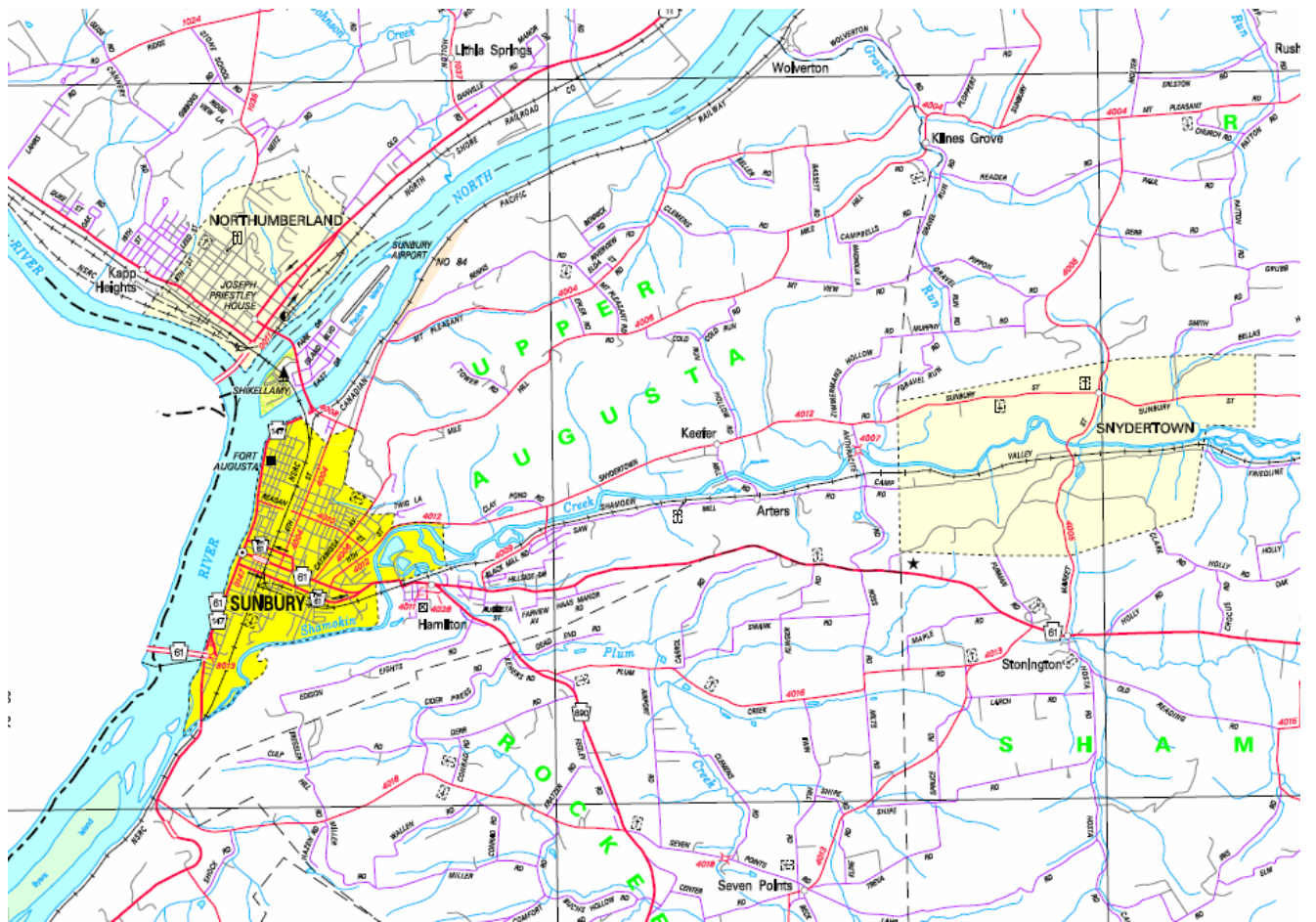
## **RAILROADS**

Railroads are expected to experience resurgence in use for movement of freight and to a lesser extent, passengers as the costs of petroleum-based fuels escalate. Several rail lines have been abandoned that previously traversed the Township and Borough leaving only a connector line paralleling Shamokin Creek east of Sunbury and one main line through Sunbury along the east shore of the Susquehanna River. The Plan supports SEDA-COG's plans to preserve and expand rail service as needed in the region, although no specific need for expanded rail service is envisioned in the near future within the Township or Borough.

## **AIRPORT**

Because of limitations of available space and location in the floodway/floodplain of the Susquehanna River, physical expansion of the facility on Packers Island is not feasible. Further, as recreational complex development expands on the Island, airport safety, security and maintenance requirements will increase. Light aircraft usage of the airport facilities may be expected to increase as a means for access to the recreational sites of Shikellamy State Park, Lake Augusta and Sunbury's new river front recreational development project. Service facilities can be expanded or improved to accommodate the potential increase in traffic volume.





## **COMPREHENSIVE PLAN IMPLEMENTATION**

### Statement Regarding Plan Relationship to the Development of Adjacent Municipalities

The Municipalities Planning Code requires that a comprehensive plan consider the relationship of the existing and proposed development of the municipality to existing and proposed development and plans in contiguous municipalities, to the objectives and plans for development in the county in which it is a part, and to regional trends.

The Joint Planning Committee of Snyderstown Borough and Upper Augusta Township reviewed the relevant documents and maps of Rush Township, City of Sunbury, Rockefeller Township, and Lower Augusta Township to make sure that there were no inconsistent land usages and/or development plans that would adversely impact these municipalities. No Comprehensive Plan for Shamokin Township has been developed; hence none could be reviewed. Review of the Northumberland County Comprehensive Plan also did not reveal any inconsistent proposed or existing land usage or development.

## **Comprehensive Plan Implementation**

The final and critical step of comprehensive planning is the process of carrying out the policies and proposals contained in the Comprehensive Plan. Unfortunately, implementation cannot be achieved through a single act or in a single document enacted by a municipality. Implementation is a continuous series of individual public and private actions monitored by responsible public agencies with public action initiated when feasible and timely. The success of such efforts will require the cooperation of all the Township's and Borough's residents and the coordinated efforts of the region's public officials and agencies.

### **CODES AND ORDINANCES**

Zoning. The zoning ordinance is a legal tool controlling the use of land in a municipality. Its regulations apply to the dimensions (height, bulk, etc.) of buildings and other structures; the percentage of a lot, which may be occupied by a structure; the dimensions of required yards (setbacks); the density of development and the actual use of the land. The zoning ordinance has two parts: (1) an official zoning map which graphically delineates land use districts and (2) a text which sets forth the regulations applied in each District, along with general information regarding administration of the ordinance.

Once the Comprehensive Plan has been adopted by a municipality, a zoning ordinance is written, reviewed and adopted. The zoning ordinance reflects the proposed land use policies in the Comprehensive Plan.

Because no one document can foresee all eventualities, future development requires periodic review and possible amendment of the zoning ordinance. If such amendment is required, it should only be done after review of the relevant planning goals and development policies set forth in the Comprehensive Plan. By amending the ordinance according to the Plan, the community can be assured that the same processes and objectives which went into the formulation of the original ordinance will be properly adjusted to new situations requiring change. If the zoning ordinance is carefully administered and modified in accordance with the Plan, it will remain the Region's most valuable instrument for guiding desirable development while preventing unguided, undesirable and disorderly development in the future.

Subdivision and Land Development Ordinance. The land subdivision ordinance is comprised of a series of regulations primarily used to guide and control the laying out of streets, the planning and improvement of lots and the provision of utility systems on undeveloped land. In a municipality where large areas of open land still exist, subdivision control is critical. Subdivision and land development controls in general should achieve the following objectives:

1. Provision of reasonable minimum standards of good design as a guide to developers.
2. Creation of a uniform process to guide and approve developer's plans for development
3. Coordination of street patterns, pedestrian ways, open space areas, etc. in developments
4. Provisions for control of storm water, pollution and soil erosion
5. Provisions to assure adequate potable water, septic facilities and other utilities
6. Control of vehicular traffic to assure safety and reduce congestion

A subdivision ordinance reflecting these objectives will be written, reviewed and adopted following adoption of the municipality's Comprehensive Plan.

Housing Code. The housing code is concerned with individual structures used or intended to be used for human habitation or occupancy and is one of only a few retroactive regulatory devices. It establishes by ordinance, minimum housing standards relating to health and safety. The ordinance governs dwelling facilities (such as plumbing and heating systems), establishes minimum standards relating to safe and sanitary maintenance of dwelling units, specifying the responsibility of owners and occupants and indicating minimum space use and location requirements. Since the housing code outlines a legal basis for condemnation, it is particularly useful in forcing correction of or removal of hazardous living conditions in housing. There are a number of model or standard housing codes available from public and/or private sources, which can be tailored to meet local needs.

Building Code. The building code provides minimum requirements designed to protect life and health and yield a maximum of structural safety. Specific provisions of the building code apply to construction, alteration, equipment use and occupancy, location and maintenance of buildings and structures. The code in its various parts is necessarily quite technical and complex. In both the Township and Borough the uniform building codes established by the Commonwealth of Pennsylvania have been adopted for residential and certain other structures. Most commercial and industrial structures fall under the codes established by the Dept. of Labor and Industry of the Commonwealth of Pennsylvania. The services of accredited building inspectors are contracted for by both municipalities. Penalties for non-compliance with the building codes are specified in the adopted state uniform building codes.

Official Map. Section 401 of the Pennsylvania Municipalities Planning Code (Act 247 of 1968) as amended, empowers the governing body of each municipality to make or cause to be made, surveys of the exact location of the lines of existing and proposed public streets, watercourses and public grounds, including widenings, narrowings, extensions, diminutions, openings or closings of same, for the whole of the municipality and, by ordinance, to adopt such surveys as the official map or part thereof of the municipality.

An official map can be an important legal tool by which municipalities in a region can effectively implement proposals of the transportation plan and affect the preservation of land for development of future improvements or aid protection of lands from development. It is not the intent of the official map to compel a dedication of land without adequate and just compensation, but is intended to prevent development such as building construction on a site where planned roads, parks and/or public facilities can be constructed in the future without incurring excessive costs in clearing the land of structures.

## **BIBLIOGRAPHY**



## Bibliography

*Land Use in Pennsylvania: Practices and Tools – An Inventory*; Governor's Center for Local Government Services; I" ed.; 2000

*Soil Survey of Northumberland County, Pennsylvania*; USDA Soil Conservation Service; 1985

*Law and Agriculture*; The Agricultural Law Research & Education Center, The Dickinson School of Law, The College of Agricultural Sciences, The Pennsylvania State University; 2004

*Community Conflicts over Agriculture, Land Use, and Natural Resources*; College of Agricultural Sciences Cooperative Extension; 1997

*Planning Beyond Boundaries – A Multi-Municipal Planning and Implementation Manual for Pennsylvania Municipalities*; Governor's Center for Local Government Services & 10,000 Friends of Pennsylvania; 2002

*Pennsylvania Municipalities Planning Code*; Act of 1968, P.L. 805, No. 247 as reenacted and amended through 2006

*2000 Census of Population and Housing (Summary Population and Housing Characteristics - Pennsylvania)*; U.S. Dept. of Commerce, Economics and Statistics Administration, Bureau of the Census; 2001

## **Pa. Dept. of Environmental Protection**

### **Bureau Fact Sheets & Publications**

Please visit DEP's eLibrary - Publications, Watershed Management.  
Most documents below are linked to PDF files, which requires Adobe Reader.

An Introduction to Ponds -- Fact Sheet, 3930-FS-DEP2855

Act 220 - The Water Resources Planning Act, Questions and Answers -- Fact Sheet, 3900-FS-DEP3104

An Introduction to Wetlands -- Fact Sheet, 3930-FS-DEP1436

Clues to Wetland. Identification: Questions for Developers, Contractors, Surveyors, Farmers and Land Owners -- Fact Sheet

Controlling Erosion and Sediment From Timber Harvest Operations, 3930-BK-DEP2340 Cryptic Clues: The Wetland Classroom, 3930-BK-DEP1392

Dam Safety and Encroachments Act, 3930-BK-DEP2247

Facts and Falsehoods: A True/False "Test" of Wetland Trivia 3930-FS-DEP1437 Flood Plain Management Act, 3930-BK-DEPO447

FY2002 Pennsylvania Nonpoint Source Annual Report 3940-MN-DEP3067

General Permit-11 Maintenance, Testing, Repair, Rehabilitation, or Replacement of Water Obstructions and Encroachments 39307FS-DEP3159

General Permits for Work in Waterways, Floodways and Wetlands -- Fact Sheet, 3930- FS-DEP3055

Gravel Bar Removal -- Fact Sheet, 3930-FS-DEP2103

Ground Source Heat Pump Systems Fact Sheet. 3940-FS-DEP2006 Managing Riparian Buffer Vegetation Fact Sheet, 3950-FS-DEP2852

Minimizing Accelerated Soil. Erosion and Preventing Sediment Pollution -- Fact Sheet, 3930-FS-DEP1841

NPDES Permits for Stormwater Discharges Associated with Construction Activities -- Fact Sheet, 3930-FS-DEP3042

Pennsylvania's Priority Planning Watershed Maps (Small, Medium, Large) Pennsylvania Gazetteer of Streams Alphabetical Listing, 3900-BK-DEP2729

Pennsylvania State Programmatic General Permit PASPGP-3 -- Fact Sheet, 3930-FSDEP1800

The Pennsylvania Stormwater Management Act 167 in Pennsylvania. 3930-FS-DEP184

Pennsylvania Stream Relief -- Fact Sheet, 3950-FS-DEP2206

Pennsylvania Wetland Replacement Project 3930-FS-DEP1943

Pennsylvania's Storm Water Management Act (Act 167) 3930-FS-DEP4101

Pennsylvania's Stormwater Best Management Practices Manual 3930-FS-4094 Potential Funding Sources for Watershed Groups 3950-FS-DEP2205

Recreational Prospecting in the Commonwealth's Waterways--3930-FS-DEP4099

Sediment and Erosion Control Requirements for Agricultural, Plowing and Tilling Activities -- 3930-FS-DEP2416

Single and Complete Projects, State Chapter 105 Permit and Corps of Engineers Section 404 Permits 3930-FS-DEP2687

Snapshot 2001 & 2002, 3900-BK-DEP2200

Soil Erosion and Sediment Requirements for Single-Family Residences Individual Lot Construction and Minor Construction Project Activities, 3930-FS-4096

Source Water Protection Grant Program Supplemental Instructions, 3900-BK-DEP2526

Timber Harvest Operations Field Guide for Waterways, Wetlands and Erosion Control, 3930-BK-DEP4016

Urban Wetlands Generously Gifting Our Cities -- Fact Sheet, 3930-FS-DEP1435

Values of Wetland Plants to Wildlife, 3930-BK-DEP4016

Water Obstruction and Encroachment Application Package 393043K-DEP2175

Water Use Registration and Reporting -- Fact Sheet, 3920-FS-DEP3094

Watershed Snapshot A Volunteer Monitoring Program, -- Fact Sheet. 3950-FS-DEP2776

Wetland Identification Policies 1987 Manual & Prior Converted Cropland --3930-FSDEP1950

Wetlands Protection and Agriculture -- Fact Sheet, 3930-FS-DEP1442

Wetlands: Functions at the junctions -- Fact Sheet, 3930-FS-DEP1434

Will You Have Enough Water Tomorrow? -- 3920-PA-DEP-3103

## **Snydertown Boro./Upper Augusta Twp. Joint Planning Committee Meeting Rules and Procedures**

The elected officers are Chairman, Vice-Chairman, and Secretary and are elected by the members of the Joint Municipal Planning Committee at the first meeting of each calendar year to serve that year. The Chairman shall be responsible for conducting Joint Planning Committee meetings - or in his/her absence the Vice-Chairman.

Minutes of meetings shall be kept and read at the next regular meeting by the Secretary or in his/her absence by a member designated by the Chairman or Acting Chairman. The Secretary shall record attendance at Joint Planning Committee meetings of members, guests and township citizens as part of the minutes. A copy of minutes of any regular or special meeting of the Joint Planning Committee once approved at the next regular meeting shall be furnished to the Borough/Township Secretary at the next regular meeting of the Borough Council/Board of Supervisors. The original copy of the Joint Planning Committee minutes shall be kept by the Joint Planning Committee Secretary unless otherwise directed by the Chairman.

- Regular meeting dates and meeting agendas are set by the Chairman or Acting Chairman.
- Regular meeting dates are advertised in a newspaper of public record annually.
- Special meeting dates and meeting agendas are set by the Chairman or Acting Chairman.
- Special meetings, once set, shall be advertised in a newspaper of public record in accordance with Commonwealth of Pennsylvania requirements and shall include the date, time and place of the meeting as well as the subject(s) to be discussed unless the meeting is listed as an open discussion.
- Requests for a special meeting can be made by the Borough Council/Board of Supervisors, a majority of Joint Planning Committee members or at the call of the Chairman of the Joint Planning Committee.
- All regular and special meetings shall be conducted according to Roberts Rules of Order.
- Quorum requirements for the conduct of business shall be a minimum of one half of the appointed Joint Planning Committee members and at least one member from both the Borough and Township.
- Cancellation of any regular or special meeting of the Joint Planning Committee shall be by the Chairman or Acting Chairman.
- A period for public input limited to 5 minutes per individual shall be provided at each regular or special meeting.
- Requests by an individual for inclusion on the agenda must be made at least 5 days prior to the date of any regular or special meeting to the Chairman or Acting Chairman.
- All new materials, maps, etc. to be considered at a regular or special meeting must be submitted at least 5 days prior to the meeting to the Joint Planning Committee Secretary or Chairman
- All guests and township citizens shall be required to identify themselves prior to their presentation at a Joint Planning Committee meeting.
- Any disputes concerning procedures at meetings will be settled by the Chairman or Acting Chairman.
- Regular or special meetings may be terminated at any point by the Chairman or Acting Chairman.

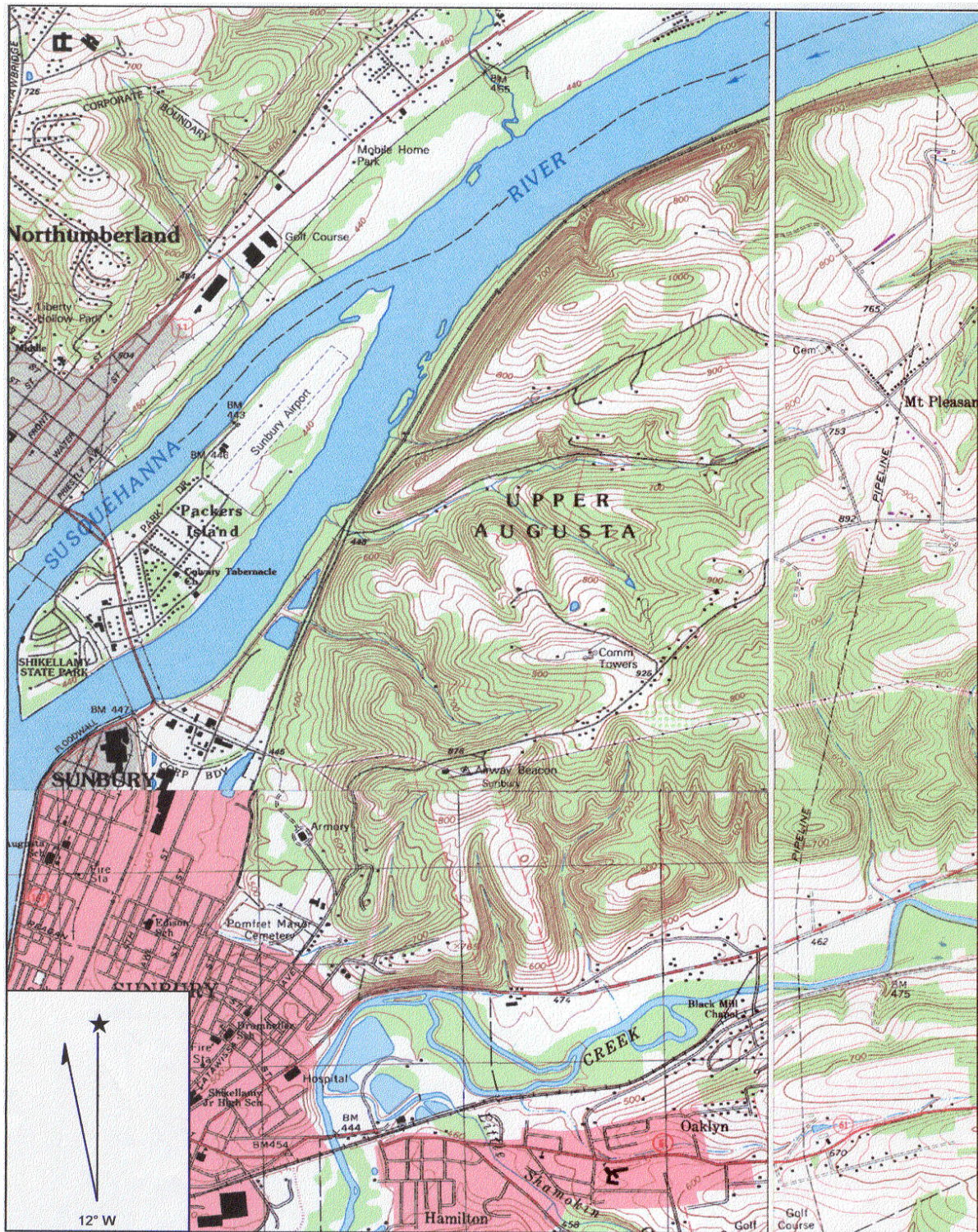
Suspension of these Rules and Procedures at any regular or special meeting of the Joint Planning Committee requires an affirmative vote by 2/3 of the members present.

These Rules and Procedures may be amended by a majority vote of the total number of appointed Joint Planning Committee members. Notice of proposed amendment(s) to these Rules and Procedures must be sent to each member at least 5 days prior to a meeting when the vote will be taken. Alternatively, a vote may be taken by mail and tabulated by the Joint Planning Committee Secretary.

A copy of these Rules and Procedures shall be available from the Joint Planning Committee Secretary.



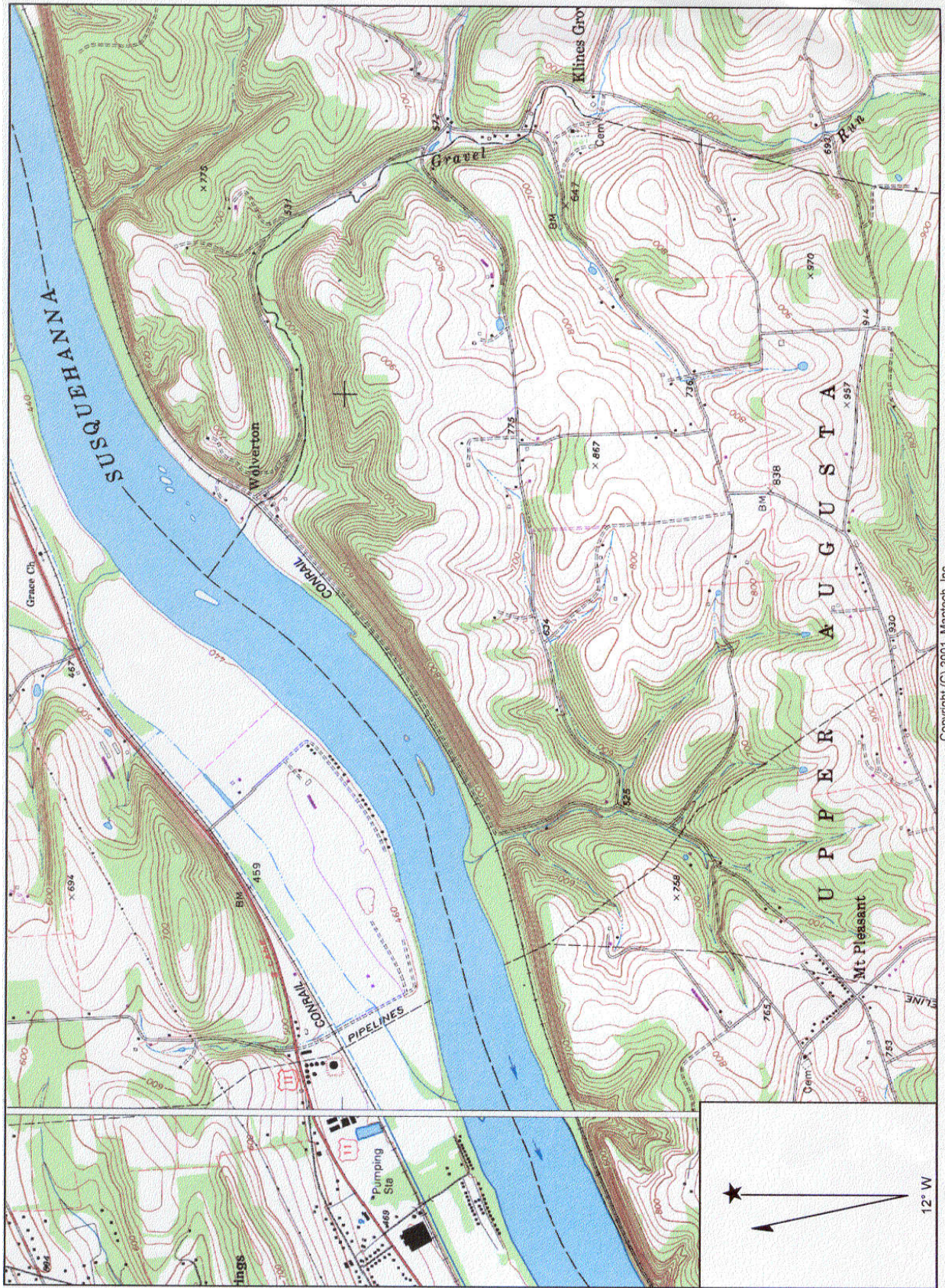






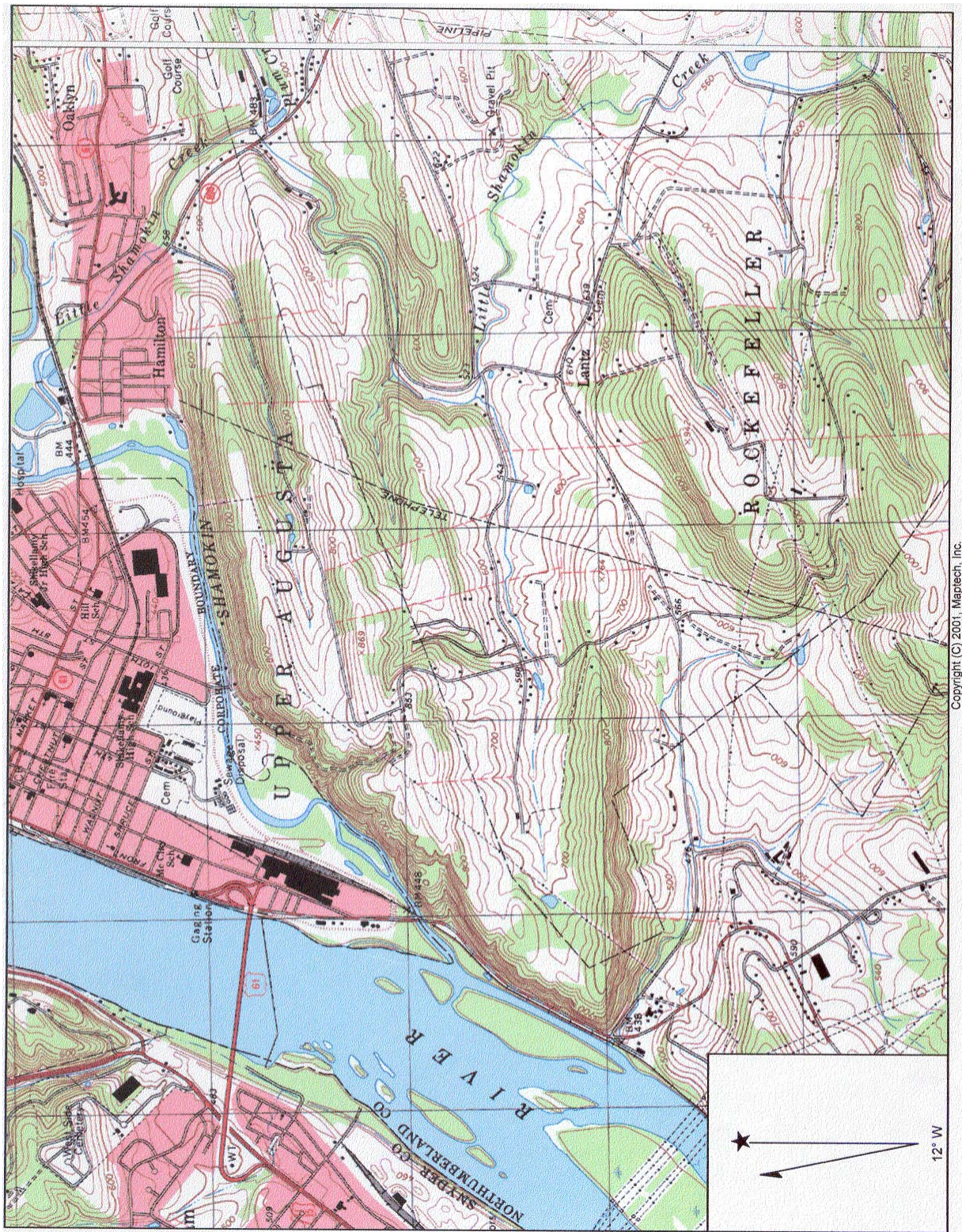




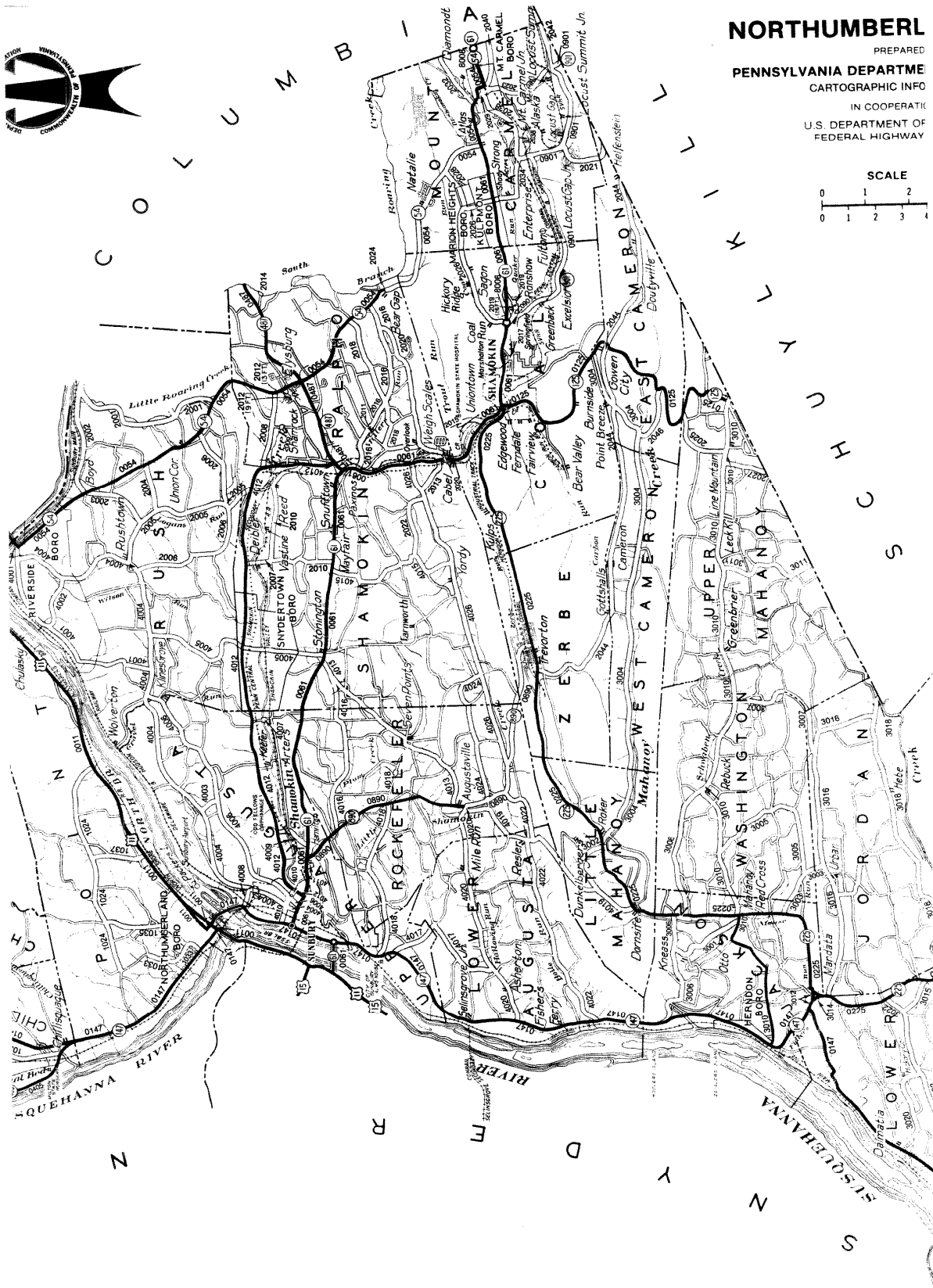


Copyright (C) 2001, Maptech, Inc.









# NORTHUMBERLAND

PREPARED BY

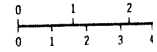
PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CARTOGRAPHIC INFORMATION

IN COOPERATION WITH

U.S. DEPARTMENT OF FEDERAL HIGHWAYS

SCALE

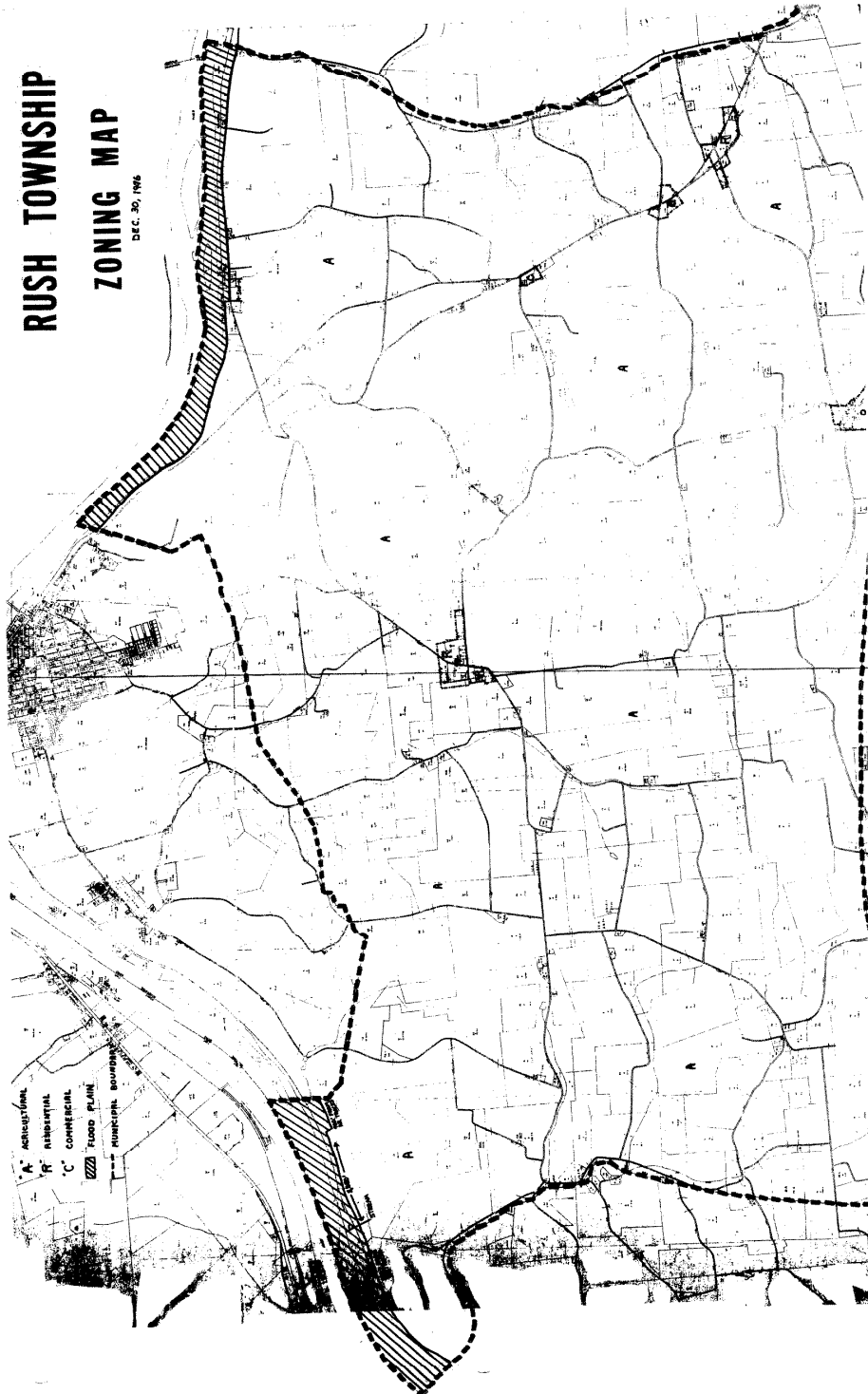


COPIES OF THIS MAP ARE AVAILABLE AT NOMINAL COST  
CONTACT:  
PENNSYLVANIA DEPARTMENT OF TRANSPORTATION  
DISTRIBUTION SERVICES UNIT  
ROOM 125, TRANSPORTATION AND SAFETY BUILDING

# RUSH TOWNSHIP

## ZONING MAP

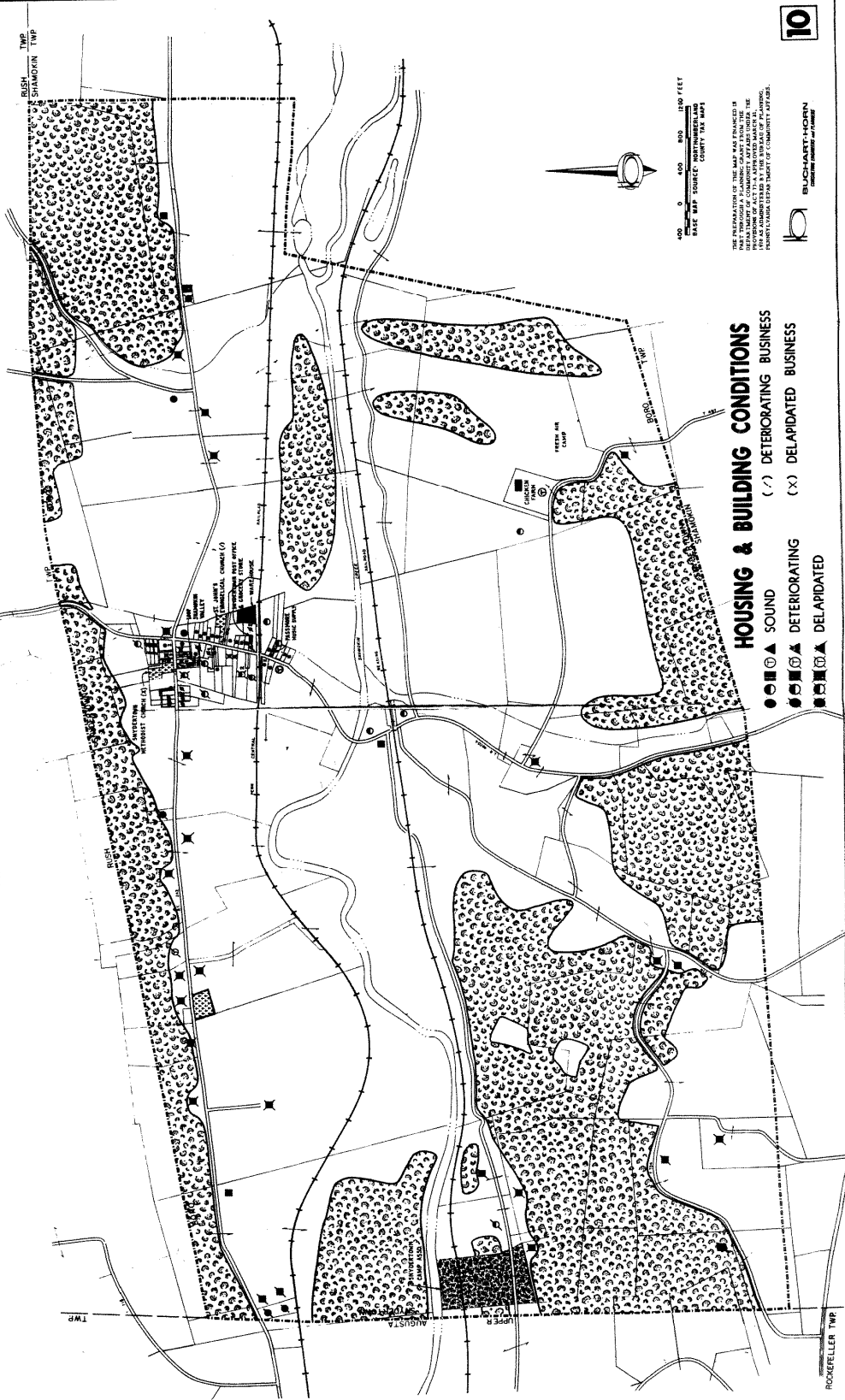
DEC. 30, 1946



# COMPREHENSIVE PLANNING STUDY **SNYDERTOWN BOROUGH** Northumberland County, Pennsylvania

## **EXISTING LAND USE**

- SUBURBAN (1 ACRE OR LESS)
- RURAL NON-FARM (1-10 ACRES)
- FARMSTEAD (OVER 10 ACRES)
- ⊙ MOBILE HOME
- COMMERCIAL - GENERAL
- ▨ COMMERCIAL - AUTOMOTIVE SERVICE
- ▩ JUNK YARD
- ▧ CHURCHES & CEMETERIES
- ▨ PRIVATE RECREATION
- ▲ PUBLIC & SEMI-PUBLIC BUILDINGS
- AGRICULTURE & VACANT
- ▨ WOODLAND



## **HOUSING & BUILDING CONDITIONS**

- SOUND
- DETERIORATING
- ⊙ DELAPIDATED
- (-) DETERIORATING BUSINESS
- (X) DELAPIDATED BUSINESS

10

BLUCHART-HORN  
 ENGINEERING & PLANNING

THE PREPARATION OF THIS MAP WAS FINANCED IN PART BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT. THE MAP IS A COMPREHENSIVE PLANNING STUDY AND IS NOT A LEGAL DOCUMENT. THE MAP IS A COMPREHENSIVE PLANNING STUDY AND IS NOT A LEGAL DOCUMENT. THE MAP IS A COMPREHENSIVE PLANNING STUDY AND IS NOT A LEGAL DOCUMENT.



