COMPREHENSIVE PLAN

PHASE I BACKGROUND STUDIES

COLUMBIA COUNTY, PENNSYLVANIA

AUGUST 3, 1993

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CHAPTER 1

INTRODUCTION

1.1 Purpose and Content of a Comprehensive Plan

The comprehensive planning process and the resulting Comprehensive Plan serves many purposes for a municipality. In order to identify the purposes of a Comprehensive Plan, it is necessary to understand what a Comprehensive Plan is and what it contains.

A Comprehensive Plan is a compilation of facts and data which relate to the future growth and well-being of a municipality and its citizens. The Pennsylvania Municipalities Planning Code (Act 247, as amended by Act 170 of 1988), hereinafter referred to as "Planning Code," provides the authority for the preparation of a Comprehensive Plan. The Planning Code also provides guidelines for what must be included in a Comprehensive Plan, which includes, but is not limited to the following:

A statement of objectives concerning the County's future development.

A land use plan, which can include provisions for the amount, intensity, character and timing of a variety of land uses.

A housing plan, including conservation and/or rehabilitation of housing as applicable, and provisions for different dwelling types and densities.

A transportation plan for the movement of people and goods.

A community facilities plan for community facilities and utilities.

A statement of the interrelationships among the various plan components which may include an estimate of the environmental, energy, conservation, fiscal, economic development and social consequences of the County.

A discussion of short and long-range plan implementation strategies and related fiscal concerns.

A statement indicating the relationship between existing and proposed development in the County, and the region. A Comprehensive Plan is a guidance document for a municipality by which future goals and policies can be determined as well as corresponding expenditures and regulatory decisions can be made. A Comprehensive Plan can also be a tool by which business and industry is drawn into a County, by providing a stable base for investment through structured growth management.

Another integral part of a Comprehensive Plan is the input of the public and corresponding public agencies and private interests. The preparation of the Columbia County Comprehensive Plan includes the guidance and input of an appointed Advisory Committee which represents a spectrum of related interests, including the Columbia County Planning Commission, Columbia County Municipalities, Economic Development, Industry, Environmental, Housing, Agriculture, Agricultural Preservation and Education.

The Columbia County Comprehensive Plan consists of two major documents. The first document will contain the Background Studies. This includes data on the County and surrounding region from which analysis can be made as to what the status of the County is with regard to areas such as growth and development, environmental resources, housing, infrastructure, economic viability and services. Based on an analysis of this information, areas of need and areas to be encouraged and promoted for various types of development can be concluded.

The second document will include the Planning Recommendations and Implementation Strategies. This document will enumerate the County goals and objectives for both the short and longterm. The needs determined in the first section of this plan will be addressed here, and recommendations regarding the achievement of the established County goals will be made.

1.2 <u>Uses of a Comprehensive Plan</u>

The Comprehensive Plan is a useful tool for decision-making, with respect to on-going municipal programs, and can assist in shaping the future of the County. The Comprehensive Plan can also provide insight and guidance for future investment to both public and private entities. The Comprehensive Plan can show what investments would be sound and desirable within the County with respect to proposed infrastructure and future growth areas.

For public agencies, the Comprehensive Plan will reveal the characteristics of the County which are necessary to make informed decisions and develop policies that are in the best interest of the County. This is achieved by providing the foundation and framework for the County's future direction. Based on the background studies and corresponding analysis of the County, and in coordination with the goals and objectives developed through the comprehensive planning process, courses of action that meet the needs of the County can be more effectively undertaken. Policies that relate to the desired goals can be developed or reevaluated, and subsequent pertinent courses of action can be implemented through grants, capital improvements programming, budgeting, regulatory devices, facilities acquisition and/or other related actions.

A Comprehensive Plan can be utilized by various levels of government and their corresponding agencies. Local municipal governments can use the plan for coordinating local comprehensive plans, as well as for providing guidance in the development of land use regulations, improvements and services. School districts can utilize information for anticipating needed facilities. The County can use this plan to provide planning assistance and direction to local municipalities; and the plan will provide a basis for decisions and recommendations by County elected officials, appointed commissions, authorities and committees. A Comprehensive Plan may also serve as a guidance document for County review of proposed facilities or improvements that are under the jurisdiction of the state, such as highways, solid waste facilities, sewage treatment facilities etc.

Legal Status of a Comprehensive Plan

As opposed to a subdivision or zoning ordinance, a Comprehensive Plan is not a legally enforceable document. Its stated purpose is to provide guidance and direction. However, the Planning Code does designate certain jurisdictional procedures related to specific actions. In accordance with the Planning Code, in a County with an adopted Comprehensive Plan, any of the following proposed actions by the governing body, its departments, agencies or appointed authorities within the County shall be submitted to the Columbia County Planning Commission for its recommendations:

- The location, opening, vacation, extension, widening, narrowing or enlargement of any street, public ground, pierhead or watercourse;
- The location, erection, demolition, removal or sale of any public structures located within the municipality;
- The adoption, amendment or repeal of any Comprehensive Plan, official map, subdivision or land development ordinance, zoning ordinance or provisions for planned residential development; or
- The construction, extension or abandonment of any water line, sewer line or sewage treatment facility.

In addition, any proposed action of the governing body of any school district located within the County relating to the location, demolition, removal, sale or lease of any school district structure or land shall be reviewed by the Columbia County Planning Commission.

In regard to planning at the local level, the County Comprehensive Plan is of great importance. The Planning Code specifies that the County and local municipalities must give consideration to each respective plan so that the objectives of each plan can be protected and adhered to as much as possible. Furthermore, municipal comprehensive plans must generally be consistent with the adopted County plan.

1.4 Implementation of a Comprehensive Plan

The first course of action for implementation of the Comprehensive Plan is that of the actual adoption of the plan by the Columbia County Commissioners. Upon its adoption, the plan becomes the official document as to the desired growth pattern and direction of the County.

Once adopted, the plan should not be "put on the shelf," but should be constantly referred to for direction and guidance in selecting future courses of action. The plan should be used by local planning commissions and elected officials, as well as the Columbia County Planning Commission, to direct growth through applicable land use ordinances. The plan should be used to coordinate individual municipal, as well as surrounding regional growth into a desired growth pattern for the County. Local municipal and County planning for capital improvements should seek guidance from the plan, and recommendations for applicable state regulated programs should be grounded in the Comprehensive Plan.

There should be an ongoing attempt to enhance, create and support programs that are consistent with the goals and objectives of the plan. The plan can be used to provide justification for grant programs that provide funds towards meeting the needs and goals of the plan. Also, budgets and actions of the County and appointed agencies should be evaluated against the plan.

The plan should be available to the public as well, in order that private decisions for investment or development can be considered in light of the proposed direction of the County.

Comprehensive planning should be an ongoing activity, and the plan should be periodically evaluated as to conformity with the needs of the County and its residents.

2. HISTORY AND REGIONAL SETTING

CHAPTER 2

HISTORY AND REGIONAL SETTING

2.1 <u>Columbia County History</u>

The area now known as Columbia County was first inhabited by American Indians. The first known tribe to settle in this area was the Lenni Lenape Indians who were then conquered by the Iroquois Tribe. To this day the influence of these Indians can be seen in the many Indian names given to local areas and features. The most conspicuous example of this being the Susquehanna River.

Settlement of the area began in 1754. When settlement first began trouble between the settlers and Indians was almost nonexistent. However, violence soon followed. This violence led to the signing of a treaty with the Iroquois Indians in 1768, which involved purchase of vast areas of land from the Indians and opened them for settlement.

Prior to the American Revolution there were conflicts between Connecticut and Pennsylvania settlers, due to political affiliations, as well as the fact that Connecticut also claimed ownership of the land now called Pennsylvania. This violence was the cause of three forts being built in Columbia County: Fort Wheeler, built to the north of Bloomsburg; Fort Jenkins, near Mifflinville; and Fort McClure which was built in modern day Bloomsburg. After the Revolution the land dispute between Connecticut and Pennsylvania was settled by a special court held in Trenton, New Jersey. With this decision and new found independence, the lands which comprised the frontier, which included Columbia County, came under great demand. Settlers began to settle the region in greater and greater numbers. At this point in history the area's economy and settlement patterns changed. The settlers coming into the area were not trappers, they were farmers. Farms began to flourish along the banks of Fishing Creek, Roaring Creek, Briar Creek, Catawissa and Mahoning Creeks as well as the Susquehanna River.

With growing numbers of people, it was decided more localized forms of government were needed. As a result, the large unmanageable counties that arose before the Revolution were subdivided into smaller, more manageable centers of government and commerce. Columbia County was created this way, being formed from the existing Northumberland County in 1813. Choosing a County seat for the newly formed County proved to be a formidable task. Originally, the County was laid out in a configuration which included the Borough of Danville. A debate ensued as to which municipality, the Borough of Danville or the Town of Bloomsburg, should be chosen as the County seat. After thirty years of debate, Bloomsburg was named County seat in 1848. Two years later, Montour County was created, with Danville being its County seat.

On March 4, 1870, Bloomsburg was established as a Town by a special act of the State Legislature. This action was initiated to provide a government better adapted to serve the compact community. To date, Bloomsburg retains the distinction of being the only Town in Pennsylvania.

The development of the County corresponded to the growing transportation system, the available natural resources, and supply and demand. The established farming and related agricultural industry continued to flourish. However, the early agrarian nature of the area soon began to give way to light industry, including the timber and mineral resource extraction industries. The transportation system spurred the County's development by providing increased accessibility. The extensive water systems of the County came into play for transportation purposes. Water was also an important source of power for industries such as grist mills. An integral part of the water transportation system was the North Branch of the Pennsylvania Canal, which traversed Columbia County along the Susquehanna River.

The railroad system, which first started serving the County in 1854, provided access for business and industry throughout the County, including developed as well as previously undeveloped areas. In the middle 1800's, Bloomsburg was an important mining town, as a result of the nearby iron ore deposits. Bloomsburg, as well as Berwick, supported smelting furnaces and foundry activities. However, around the turn of the century, the economic base of this area changed due to the depletion of the minable resources. With this event, the trend of Bloomsburg and Berwick developing manufacturing businesses began. Of particular importance were the textile mills, such as Magee Carpet.

The trend to a manufacturing based economy continued, such as the first all-steel railroad cars being manufactured in Berwick, as well as ACF tanks, which were utilized during World War II. Through the mid 1900's the manufacturing industry remained a primary employer, with textile and garment production, metal working and fabricating and food production the highest ranking industries.

A decline in the County's industrial base began to occur in the 1960's and was accented by the closing of the ACF plant in Berwick in 1962. However, the ACF property was purchased by the Berwick Industrial Development Authority (BIDA), and used to develop the BIDA Industrial Complex which was used to house numerous industries. The 1960's also saw Bloomsburg and Berwick initiate the development of an industrial park at the County level through a joint venture. Land was sold to the County for purposes of developing the Columbia County Industrial Park under the auspices of the Columbia County Industrial Authority.

Actual development in the Columbia County Industrial Park did not begin until the 1980's. Prior to the 1980's, new industrial development gravitated mainly towards vacant lots, existing buildings primarily in the BIDA complex, and the Magee Industrial Complex. However, the Columbia County Industrial Park is currently nearing capacity and the need for a second park is being explored.

The manufacturing sector continues to be the greatest County employer to date. However, a decrease in manufacturing employment has occurred over the past two decades while the service industry has grown. Also, agriculture still has a strong base within the County.

In the late 1800's, the timber resources of northern Columbia County were utilized for timber as well as tanning bark. This resource became exhausted around 1910.

Also in the late 1800's, anthracite coal was mined in southern Columbia County in Conyngham Township, and to a lesser degree, in Beaver Township. Today, coal mining activities are limited on a reduced scale to strip mining in Conyngham Township.

With the advent of the automobile, a more convenient means of transportation was utilized. Roadways were improved which connected the various sections of the County as well as the outlying region. These roadways impacted the development of the County, as commercial and industrial, as well as residential development followed. As such, major developed areas formed in the County parallel to Route 11 and the Susquehanna River. Also, the construction of U.S. Interstate 80, completed in 1965, had a significant impact on commerce and development. The Bloomsburg Airport also provides transportation services for the County through small aircraft charter service.

Service establishments have significantly increased along the Route 80 corridor, particularly along the interchanges. Buckhorn now contains the Columbia Mall as well as an array of restaurants and transportation service related businesses. Lighstreet, and more recently Mifflinville, also have seen restaurant and service station related businesses increase.

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The development of the County's outlying area has put a strain on the central downtowns of the County. With the changing customer retail patterns, the downtowns have undertaken revitalization efforts. Programs such as building renovation, convenience as well as a mix of improved shopping opportunities, have been initiated. Also, special events are promoted and undertaken in the downtown areas.

In the post World War II era retailing in Columbia County, as has been the case throughout America, increasingly expanded to shopping centers and commercial strip locations. By the 1960's, enclosed malls became popular, with the first enclosed mall in the County, the Columbia Mall, completed in 1988. These relatively new retailing areas developed at the expense of the County's main traditional downtown commercial districts in Berwick and Bloomsburg.

In the 1980's Bloomsburg, then somewhat later Berwick initiated central business district revitalization programs which included building renovation, improved signage, beautification projects and special events and promotions. These efforts, together with such attractions as the Bloomsburg Theater Ensemble, have enabled the downtown business districts to maintain a commercial and social viability. The downtowns have changed in recent years in regard to types of business represented, with a decline in department stores and a shift to specialty shops, fast food restaurants and establishments offering services rather than merchandise.

Currently, Columbia County is still basically rural in nature, with the main population centers located in Berwick and Bloomsburg. The County's growth pattern throughout the decade has generally continued the action of development along accessible routes. During the 1930's and 1940's, the growth was visible in developed municipalities or immediately adjoining areas. During the 1950's and 1960's, the trend continued, but the areas of growth were more encompassing, reaching through the Route 11 corridor. From the 1970's to the present, the trend has been of high growth in the rural outlying municipalities, many of which lack infrastructure.

One of the distinguishing events of Columbia County is the Bloomsburg Fair. This fair is over 125 years old, and has recently drawn an average weekly attendance of over 750,000 people. The fairgrounds are used year-round for other events and shows as well.

Major facilities developed adjoining counties of the region include PP&L's Washingtonville Power Plant in Montour County which is a coal-fired plant; and more recently, the Bell Bend Nuclear Plant in Luzerne County.

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Education also is a major factor in the quality of life, and in the development of a County. What is today Bloomsburg University was first established in 1839 as an academy. Then in 1856, the academy became the Bloomsburg Literary Institute to promote education in both the ordinary and higher branches of English Literature and Science and in the ancient and modern languages. The evolution continued in 1869 with the change to the Bloomsburg Normal School, and in 1927 to the Bloomsburg State Teachers College. As a State Teacher's College, Bloomsburg evolved into a four-year degree institution. In 1960, the school became Bloomsburg State College, and could grant baccalaureate degrees for liberal arts programs. Most recently, in 1983, the school became Bloomsburg University. It offers 64 undergraduate degree programs, one associates degree, 23 masters degrees and a doctoral program In 1992, the University has over in elementary education. 6,900 students.

2.2 <u>Regional Setting</u>

Columbia County is located in the northeastern portion of Pennsylvania in the ridge and valley section of the Appalachian Mountains and is part of the Chesapeake Bay Watershed. It is surrounded by the Counties of Luzerne, Lycoming, Montour, Sullivan, Northumberland, and Schuylkill as is illustrated on the following Regional Location Map (Map 2-1).

Columbia County is a 6th class county which encompasses 484 square miles; with its widest east-west breadth being approximately 21.5 miles, and the longest north-south length being approximately 37 miles. Columbia County is composed of 33 municipalities, which includes 24 second-class Townships, 8 Boroughs, and 1 Town.

The County is accessible to the surrounding region by its major traffic routes, including State Routes 11, 487, 42, and U.S. Route 80. The County is located approximately 76 miles northeast of Harrisburg, 10 miles east of Danville, 23 miles west of Wilkes Barre, and 20 miles southeast of Williamsport.

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3. DEMOGRAPHIC ANALYSIS

CHAPTER 3

DEMOGRAPHIC ANALYSIS

3.1 Introduction

Part of the basic framework for a comprehensive plan is that of analyzing and understanding the population growth or decline of the study area, and formulating population projections based on past trends and current available information. The population and related characteristics are the forces that drive the needs and services that a local government must provide and plan to provide. As the population grows, expanded roads, utilities and community services and facilities are needed. A geographically spreading population also creates greater possibilities for incompatible land uses and conflicts. In addition, as the characteristics of the population change, so do the needs, ranging from school facilities to senior centers.

By reviewing Columbia County's demographic profile, conclusions can be drawn as to how the County relates to growth on a regional level, how it is changing internally by local municipal growth, and how this can be applied to past, current and future needs for community development.

3.2 <u>National, State and County Trends</u>

Table 3-A indicates the past population trends of the Nation, State, and County, and also provides comparable growth rates. On the national level, this period began with a moderate growth rate of 7.2% from 1930 to 1940. Growth during this period was moderated by the impact of the Great Depression. State growth during this time was minimal at 2.8% with the County's falling between that of the Nation and State at 5.3%.

Growth during the World War period of the following decade did see somewhat of an increase. However, the most significant growth occurred after the war when reunited families initiated the "baby boom" era. This resulted in a 14.4% growth rate between 1940 and 1950, and continued with a growth rate of 19% between 1950 and 1960. Correspondingly, Pennsylvania saw an increased growth rate during the decade of the 1950's and 1960's with increases in population of 6.0% and 7.8%, respectively. During these two decades however, Columbia County's growth rate decreased to 4% and a minute 0.1%.

A period of slow growth rates, relative to previous decades, began in the 1970's for both the Nation and the State. This was particularly true for the State, which observed a decline in growth rates from 4.1% to 0.5% and less. During this time period, however, Columbia County saw its fastest decade of growth, experiencing a 12.4% growth rate from 1970 to 1980.

TABLE 3-A

	National	State	Columbia County
1930	122,775,046	9,631,350	48,803
1940	131,669,275	9,900,180	51,413
t Change	7.2	2.8	5.3
1950	150,697,361	10,498,012	53,460
\ Change	14.4	6.0	4.0
1960	179,323,175	11,319,366	53,489
1 Change	19.0	7.8	· 0,1
1970	203,211,920	11,800,766	55,114
\$ Change	13.3	4.1	3.0
1980	226,500,000	11,863,895	61,958
1 Change	11.4	0.5	· 12.4
1990	248,709,873	11,881,643	63,202
1 Change	10.9	0.1	2.0

NATIONAL, STATE AND COUNTY HISTORICAL POPULATION CHANGE

SOURCE: U.S. Department of Commerce, Bureau of Census.

3.3 <u>Regional Trends</u>

Regional population trends will be evaluated in a dual manner, by reviewing the demographics of the counties which surround Columbia County, as well as through the evaluation of the demographics of the counties of the SEDA-COG Region. The surrounding counties correlate to Columbia County for such items as commerce, transportation, work force, utilities and land use. While the SEDA-COG area relates to these noted factors to a lesser degree, a separate important factor is the economic development grants and assistance funneled through to these counties by the SEDA-COG Region.

With regard to counties adjoining Columbia County (Table 3-B), four (4) show a definite trend of decreasing populations. These counties include Luzerne, Northumberland, Schuylkill and Sullivan. For these four (4) counties, the only decade of population increase was the 1970's. It should also be noted that from 1970 to 1980 Columbia County experienced its most accelerated decade of growth at 12.4%, since the turn of the century. Montour County experienced minimal or negative growth from 1950 to 1980. However, from 1980 to 1990, it experienced the highest growth rate of the region at 6.4%. Lycoming County, along with Columbia, is the only county that did not experience a decade of population decline since 1950. However, Lycoming County's growth rate from 1980 to 1990 was a negligible 0.2%.

TABLE 3-B

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County	Populat 1950	ion 1960	Percent Change	Population 1970	Percent Change	Population 1980	Percent Change	Population 1990	Percent Change	1950 - 1990) Change
Columbia	53,460	53,489	0.1	55,114	3.0	61,967	12.4	63,202	2.0	15.4
Luzerne	392,241	346,972	-13.0	341,956	j -1.5	343,079	0.3	328,149	-4-4	-19.5
Lycoming	101,249	109,367	7.4	113,296	3.5	118,416	4.5	118,710	0.2	14.7
Kontour	16,001	16,730	4.4	16,508	-1.3	16,675	1.0	17,735	6.4	9.8
Northumberland	117,115	104,138	-12.5	99,190	-5.0	100,381	1.2	96,77î	-3.6	-21.0
Schuylkill	200,577	173,027	-16.0	160,089	-8.1	160,630	0.3	152,588	-5.0	-31.5
Sullivan	6,745	6,251	- 0.0	5,961	-4.9	6,349	6.5	6,104	-3.9	-10.5
Pennsylvania	10,498,012	11,319,366	7.3	11,800,766	4.1	11,863,895	0.5	11,881,643	0.1	11.6

POPULATION CHANGE IN SURROUNDING COUNTIES

SOURCE: U.S. Department of Commerce, Bureau of Consus.

Within the SEDA-COG Region (Table 3-C), all counties with the exception of Northumberland, have generally experienced growth. The county with the most significant growth was Centre County, which experienced relatively accelerated growth during this time period, and led the region with a growth rate of 46.7% between 1950 and 1990. Perry, Union and Snyder counties also maintained a steady growth rate over this time period. Northumberland County is the only county to show an overall decline, losing 21% of its population for the period of 1950 to 1990. Most recently, Columbia County's growth for the 1980's was 2% versus the mean growth rate of 3.3% for the entire SEDA-COG Region. Overall growth in the SEDA-COG Region was 18.5% from 1950 to 1990.

TABLE 3-C

SEDA-COG County	Populat 1950	ion 1960	Percent Change	Population 1970	Percent Change	Population 1980	Percent Change	Population 1990	Percent Change	1950 - 1990 % Change
Centre	65,922	78,580	16.1	99,267	20.8	112,760	13.6	123,786	9.8 -	46.7
Clinton	36,532	37,619	2.9	37,721	0.3	38,971	3.3.	37,182	-4.6	" 1.7
Columbia	53,460	53,489	0.1	55,114	3.0	61,967	12.4	63,202	2.0	15.4
Juniata	15,243	15,874	4.0	16,712	5.0	19,188	14.8	20,625	7.5	26.1
Hifflin	43,691	44,348	1.5	45,268	2.0	46,908	3.6	46,197	-1.5	5.4 🛬
Lycoming	101,249	109,367	7.4	113,296	3.5	118,416	4.5	118,710	. 0.2	14.7
Hontour	16,001	16,730	4.4	16,508	- 1.3	16,675	1.0	17,735	6.4	9.8
Northumberland	117,115	104,138	-12.5	99,190	- 5.0	100,381	1.2	96,771	-3.6	-21.0
Perry	24,782	26,582	6.8	28,615	7.1	35,718	24.8	41,172	15.3	39.6
Union	23,150	25,646	9.7	28,603	10.3	32,870	14.9	36,176	10:1	36.0
Snyder	22,912	25,922	11.6	29,269	11.4	33,584	14.7	36,680	9.2	37.5
SEDA-COG Total	520,057	538,295	3.4	569,563	5.5	617,438	7.8	638,236	3.3	18.5

POPULATION CHANGE IN SEDA-COG REGION

SOURCE: . U.S. Department of Commerce, Bureau of Census.

3.4 Columbia County Population and Social Characteristics

Table 3-D provides county and local municipal population counts and changes for the period of 1930 to 1990. With respect to Columbia County trends, low growth was experienced from 1930 to 1970. However, the decade of the 1970's showed a population increase of 12.4%. Most recently, a small growth rate of 2% was experienced from 1980 to 1990.

With regard to local municipal growth, various patterns are apparent over the past 60 years. At the beginning of the study period, during the 1930's and 1940's, the most significant continual growth areas were Briar Creek Borough, Millville Borough, and Scott Township. This reflects the accelerated growth trend in developed municipalities and municipalities adjoining urbanized areas. During the 1950's and 1960's high growth areas included Briar Creek Borough, and the Townships of Briar Creek, Catawissa, South Centre, Hemlock, Montour and Scott. This trend is illustrative of a more diversified region of growth; however, all of the municipalities of this region are located close to the developed Route 11 corridor. Also of note during this time period, several areas experienced significant continual population loss, including Centralia Borough and Jackson Township. Most recently, during the 1970's and 1980's the rural municipalities of the County experienced the highest growth rate, of which many did not have adequate public infrastructure and services to accommodate such growth.

A breakdown of the number of municipalities incurring significant growth rates are as follows:

Population Increase

1970 to 1980

<pre>% Increase</pre>	Number of <u>Municipalitie</u> :
10-20	4
20-30 30-40	5
40 +	10

A total of 22 municipalities increased in population by 10% or more during this decade. Of particular note are the following Townships: Briar Creek (43.6%) Catawissa (41%), North Centre (92.8%), Fishing Creek (45.6%), Jackson (42.5%), Madison (40.7%), Main (66.5%), Mt. Pleasant (89.9%), Orange (61.6%) Pine (51.3%).

From 1980 to 1990 the number of municipalities that experienced a significant growth rate decreased. However, the trend of significant development and growth occurring in the outlying and rural municipalities continued. A breakdown of municipalities experiencing significant growth rates from 1980 to 1990 are as follows:

Population Increase

1980 to 1990.

<u> </u>	Number of <u>Municipalities</u>
10-20	9
20- 30 ⁻	2 .
30-40	_
40 +	1

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TABLE 3-D

COLUMBIA COUNTY POPULATION CHANGE BY MUNICIPALITY, 1930 - 1990

······································	1											·	r
SEDA-COG	Popul	ation	Percent	Population	1980 - 1990								
councy	1930	1940	Change	1950	cnange	1960	cnange	1970	Change	1980	Change	1990	1 Change
Beaver (T)	895	854	- 4.6	776	- 9.1	689	-11.2	693	0.6	718	3.6	928	29.2
Benton (B)	733	786	7.2	. 890	13.2	981	10.2	1.027	4.7	981	~ 4.5	958	- 2.3
Benton (T)	711	690	- 3.0	747	8.3	690	- 7.6	622	19.1	1,109	34.9	1,094	- 1.4
Berwick (B)	12,660	13,181	4.1	14,010	6.3	13,353	- 4.7	12.274	- 8.1	11.850	- 3.5	10,976	- 7.4
Bloomsburg (Town)	9,093	9,799	7.8	10,633	8.5	10,655	0.2	11,652	9.4	11,717	0.6	12,439	6.2
Briar Creek (B)	249	316	26.9	348	10.1	399	34.7	456	14.3	637	39.6	616	- 3.3
Briar Creek (T)	1,381	1,420	2.8	1,546	8.9	1,871	21.0	2,150	14.9	3,089	-43.6	3,010	- 2.5
Catawiosa (B)	2,023	2,053	1.5	2,000	2.6	1,824	- 8.8	1.701	- 6.7	1,568	- 7.8	1,683	7.3
Catawissa (T)	475	500	5.3	502	0.4	579	15.3	648	11.9	914	41.0	1,037	13.5
Centralia (B)	2,446	2,449	0.1	1,986	-18.9	1,435	-27.7	1.165	-18.8	1,017	~12.7	63	-93.9
North Centre (T)	1,195	1,458	22.0	678	-53.5	655	- 3.4	790	20.6	1.523	92.8	1.860	22.1
South Centre (T)				842		1.127	33.8	1.600	42.0	1.907	19.2	1.891	- 0.8
Cleveland (T)	923	· 958	3.8	826	-13.8	775	- 6.2	796	2.7	912	14.6	997	9.3
Conyngham (T)	2.732	2.717	- 0.5	2,009	-26.1	1.119	-44.3	1.137	1.6	1.195.	5.1	1.038	-11.1
Fishing Creek (T)	935	936	0.1	904	- 3.4	926	- 2.4	884	- 4.5	1.287	45.6	1.378	7.1
Franklin (T)	493	505	2.4	456	- 9.7	428	- 6.1	427	- 0.2	541	26.7	674	15.1
Greenwood (T)	1,011	1.228	21.5	1.306	6.4	1.274	- 2.5	1.168	7.4	1,885	37.6	1.972	4.6
Hemlock (T)	908	1.047	15.3	1.093	4.4	1.301	19.0	1.506	15.0	1.579	4.8	1.546	- 2.1
Jackson (T)	334	363	9.7	424	16.8	374	-11.8	322	-13.9	459.	42.5	508	10.6
Locust (T)	1,134	1,142	0.7	1,182	3.5	1,112	- 5.9	1.046	- 5.9	1,152	10.1	1.308	13.5
Madison (T)	751	881	17.3	942	6.9	951	1.0	976	2.6	1,373	40.7	1.565	14.0
Hain (T)	531	566	6.6	552	- 2.5	553	0.2	658	18.9	1,096	66.6	1,241	13.2
Hifflin (T)	1,218	1,230	1.0	1,478	20.2	-1,641	11.0	1,781	8.5	2,192	23.1	2,305	5.2
Millville (B)	666	761	14.3	878	15.4	952	8.4	896	- 5.9	975	9.9	969	- 0.6
Hontour (T)	63 <u>8</u>	688	7.8	801	16.4	1,015	25.5	1,224	20.6	1,580	29.1	1,419	-10.2
Ht. Pleasant (T)	574	628	1.7	649	-3.3	655	0.9	672	2.6	1,276	89.9	1,383	8.4 ·
Orange (T)	338	287	-15.1	387 '	34.6	442	14.2	453	2.5	730	61.1	1,043	42.9
Orangeville (B)	415	434	4.6	424	- 2.3	444	4.7	. 431	- 2.9	507	17.6	504	- 0.6
Pine (T)	526	649	23.4	674	3.9	683	1.3	631	- 7.6	955	51.3	. 990	3.7
Roaring Creek (T)	523	503	- 3.8	445	-11.5	404	- 9.2	364	- 9.9	469	28.8	478	1.9
Scott (T)	1;579	1,846	16.9	2,256	22.3	3,256	44.2	3,875	19.0	3,951	2.0	4,423	11.9
Stillwater (B)	171	200	17.0	189	- 5.5	193	2.1	208	7.8	201	- 3.4	223	10.9
Sugarloaf (T)	542	638	17.7	625	- 2.0	503 .	-19.5	481	- 4.4	614	27.7	730	10.9
County Total	48,803	51,413	5.3	53,460	4.0	53,489	0.1	55,114	3.0	61,958	12.4	63,202	2.0

SOURCE: U.S. Department of Commerce, Bureau of Census.

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These significant growth municipalities include: Beaver Township (29.2%), Catawissa Township (13.5%), Franklin Township (15.3%), Hemlock Township (10.6%), Jackson Township (13.5%), Locust Township (14.0%), Madison Township (13.9%), Main Township (13.2%), North Centre Township (22.1%), Orange Township (42.8%), Scott Township (11.9%), Sugarloaf Township (18.8%), and Stillwater Borough (10.9%). Of these 13 municipalities, only portions of Locust, Madison and Scott Townships are currently served by a public sewage collection/treatment system and only portions of Hemlock, North Centre, Orange and Scott Townships are served by a community water supply system. Map 3-1 illustrates the population change by municipality during this decade.

In regard to population trends over the noted time period, Bloomsburg and Berwick continue to be the main population centers of the County. Bloomsburg has not experienced any population decline since 1930; however, Berwick has been losing population since the 1950's. Catawissa and Scott Townships experienced continual growth while Centralia Borough, due to the mining industry decline and the underground mine fire, has been constantly losing population.

The decline in population in Centralia Borough is projected to continue until the U.S. Government has acquired all structures and properties in the Borough through a buy-out program, at which time there will be no residents remaining in the Borough. Due to the unsafe living conditions created by the underground mine fire in Centralia Borough, the U.S. Congress in 1984, declared the Borough an unsafe area for occupation and appropriated 42 million dollars for purchase of all structures and their associated property. This buy-out program is being administered by the Columbia County Redevelopment Authority in cooperation with the Pennsylvania Department of Community Affairs and is expected to be completed by June of 1994.

3.4.1 <u>Density</u>

Columbia County has a population density of 130.2 persons per square mile as illustrated by Table 3-E. As expected, the highest population densities in the County are found in the Boroughs of the County and the Town of Bloomsburg, with Berwick Borough highest on the list with 3,541 persons per square mile, and Catawissa Borough second with 3,366 persons per square mile. Exceptions to this trend includes Centralia Borough, with 315 persons per square mile, and Stillwater Borough, with only 72 persons per square mile. The low population density in Centralia Borough is attributable to the mine fire relocation program, whereas in Stillwater Borough the factor would be its large land area and small total population. Columbia County municipalities with the lowest population densities would be the Townships of Roaring Creek (20), Beaver (26), Jackson (27), and Sugarloaf (28).

Geographically, municipalities containing the highest density populations generally parallel Route 11 or are outlying established Boroughs. The density ranges form a concentric pattern, with density decreasing proportionately with the distance from the center of the County as illustrated by Map 3-2.

TABLE 3-E COLUMBIA COUNTY POPULATION DENSITIES BY MUNICIPALITY, 1990

Municipality	1990 Population	Square Miles	Population Density
Beaver Two.	928	35.7	26
Benton Boro.	958	0.6	1.597
Benton Twp.	1.094	20.1	54
Berwick Boro.	10.976	3.1	3.541
Bloomsburg, Town of	12,439	4.4	2.827
Briar Creek Born.	616	1.6	385
Briar Creak Twp.	3,010	21.1	143
Cataviasa Boro.	1.683	0.5	3, 366
Catavissa Two.	1.037	12.5	83
Centralia Boro.	63	0.2	315
Cleveland Two.	997	23.3	43
Convaghan Tvp.	1.038	20.2	51
Fishing Creek Two.	1,378	28.3	. 49
Franklin Two.	624	13.2	47
Greenwood Two.	1.972	27.9	1 71 .
Hemlock Twp.	1.546	17.5	88
Jackson Twp.	508	18.6	27
LOCUST TWD.	1.308	18.0	73
Madison Twp.	1,565	35.3	44
Main Twp.	1,241	16.2	77
Mifflin Two.	2.305	19.2	120
Millville Boro.	969	1.0	969
Hontour Twp.	1,419	9.2	154
Mount Pleasant Twp.	1.383	17.5	79
North Centre Twp.	1,860	15.4	121
Orange Twp.	1,043	13.1	80
Orangeville Boro.	504	0.4	1.260
Pine Twp.	990	26.6	37
Roaring Creek Twp.	478	23.5	20
Scott Twp.	4,423	7.2	614
South Centre Twp.	1,891	5.3	357
Stillwater Boro.	223	3.1	72
Sugarloaf Twp.	730	25.9	- 28
Columbia County	63,202	486.0	130

SOURCE: U.S. Department of Commerce, Bureau of Census.

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3.4.2 <u>Composition</u>

Columbia County's population is 99% white as illustrated in Table 3-F. Individuals of Spanish origin constitute .5%, Black and Asian populations account for .4% each, while the remaining .2% is America Indian and others. A majority of the minorities in the County are found predominantly in Bloomsburg and Berwick, with notable numbers in Scott Township.

3.4.3 Age Structure

As shown on Table 3-G, the median age of residents of Columbia County is 34.1 years, which is slightly lower than the 35.0 year state median age. The Town of Bloomsburg very noticeably has the lowest median age at 23 years, due to the Bloomsburg University population. The next youngest median age is 31.8 years, in Briar Creek Township, considerably older than that of Bloomsburg. Centralia Borough has the oldest population within the County with a median age of 53.8 years, with a quickly diminishing population down to 63 persons. The municipality with the next oldest population is Orange-ville Borough with a median age of 48.9 years. There are 9,974 persons 65 and over within Columbia County as of the 1990 Census, with the greatest number (2,500) being located in Berwick. There is a total of 49,413 persons aged 18 and over which are eligible voters.

3.4.4 Educational Attainment

The educational attainment of County residents is a factor that provides insight into labor force characteristics and its potential capabilities, as well as age distribution.

"Table 3-H provides a detailed educational breakdown for the County as a whole. As shown, 73.1% of the County residents are high school graduates or over, and 12.5% have a college bachelors degree or higher.

Table 3-I provides a comparison of Columbia County educational attainment with respect to the state and the region between 1980 and 1990. For Columbia County, the percent of residents who achieved a high school diploma or higher increased from 63.4% in 1980 to 73.1% in 1990, and those receiving a college bachelors degree or higher rose from 10.1% to 12.5% in that same decade. TABLE 3-F

	COLUMBIA COUNTY	POPULATION	ETHNIC	BREAKDOWN	BY	MUNICIPALITY,	, 1990
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			and the second se				
	1990			Amer.	. e. 1		Spanish
Municipality	Population	White	Black	Ind.	Asian	Other	Origin
		· · · · · · · · · · · · · · · · · · ·					
Beaver Two.	928	· 921	,		5	• 2	8
Benton Boro.	958	. 957		1			2
Benton Two.	1,094	1,091	2			• 1 •	-2
Berwick Boro.	10,976	10,887	: 46	5.	26	12	57
Bloomsburg, Town of	12,439	12,114	179	11	98	37	134
Briar Creek Boro.	616 ·	608		·	5	3	1
Briar Creek Twp.	3,010	2,998	6		5	ī	16
Catawissa Boro.	1,683	1,677	4		- 1	1	'13
Catawissa Twp.	1,037	1,037					2
Centralia Boro.	63	63	ن سب	·		~~~	
Cleveland Twp.	997 .	996	·		1	· ·	. 3
Conyngham Twp.	1,038	1,038					1 1
Fishing Creek Twp.	1,378	1,374			1	• 3	3
Franklin Twp.	624	622	2.				· 1
Greenwood Twp.	1,972	1,968	3	1	~~~ .		3
Hemlock Twp.	1,546	1,534	5	· 2	5		. 4
Jackson Twp.	508	508					·
Locust Twp.	1,308	1,307				1	7
Madison Twp.	.1,565	1,555		.4	· 4 ·	2	.3
Main Twp.	1,241	1,236	3	. 1	1		.9
Mifflin Twp.	2,305	2,300		. 2	3		7.
Millville Boro.	969 -	968			· 1		. 4
Montour Twp.	1,149	1,140	5	1	P 2	1	10
Mount Pleasant Twp.	1,383	1,378			4	1.1	3
North Centre Twp.	1,860	1,856		• 1	3		3
Orange Twp.	1,043	1,040	2			1	2
Orangeville Boro.	504	503		·		1 1	2
Pine Twp.	990	986		. 3		. 1	1
Roaring Creek Twp.	478	476		1 1.	1		1 1
Scott Twp.	4,423	4,359	9	4.	45	6	23
South Centre Twp.	1,891	1,871	2	1 1	14	3	10.
Stillwater Boro.	223	223		·			
Sugarloaf Twp.	· 730 ·	*724		· · · · · ·	3	3	6
Columbia County	63,202	62,315	268	38	229	80	341
						L	l

SOURCE: U.S. Department of Commerce, Bureau of Census

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TABLE 3-G

COLUMBIA COUNTY AGE DISTRIBUTION, 1990

Hunicipality	All Persons	Under 5	16 Years and over	18 Years and over	18-20	21-24	25-44	45-54	55-59	60-64	65 and over	Hedian Age
Beaver (T)	928	59	711	677	41	37.	289.	106	40	45	. 119	34.9
Benton (B)	958	54	737	707	37	50	281	86	1 44	54	155	33.9
Benton (T)	1,094	78	. 837	804	35	55	332	107	60	1 65	1 150	35.7
Berwick (B)	1.094	78	837	804	35	.55	332	107	60	65	150	35.7
Bloomsburg (Town)	12.439	443	11.101	10,921	3.283	2.141	2.362	772	388	408	1-627	23.0
Briar Creek (B)	616	56	473	457	35	50	169	65	34	24	80	31.8
Briar Creek (T)	3.010	185	2.385	2.289	120	152	917	373	157	152	418	37.0
Catawissa (B)	1,683	128	1,322	1.295	64	94	482	141	63	95	356	36.7
Cataviesa (T)	1,037	. 78	817	786	39	48	349	122	44	58	126	36.3
Contralia (B)	63	2	57	56	.1	3	15	6	6	5	18	53.0
North Centre (T)	1,860	151	· 1,411.	1,345	75	95	656	198	87	59	175	33.1
South Centre (T)	1,891	122	1,510	1,456	84	104	542	226	108	- 117	275	36.9
Cleveland (T)	997	64	781	744	36	34	310	120	47	71	126	36.7
Conyngham (T)	1,038	57	830	803	j · 39	47	292	114	43	67	201	38.0
Fishing Creek (T)	1,370	84	1,078	1,024	59	50	: 429	161	70	56	199	36.0
Franklin (T)	624	47	466	452	24	24	208	49	44	37	66	34.1
Greenwood (T)	1,972	154	1,471	1,417	69	90	614	189	87	90	278	34.0
Hemlock (T)	1,546	104	1,234	1,193	54	89	466	179	91	96	219	36.4
Jackson (T)	508	45	401	392	13	25	153	61	31	31	1. 78	37.6
Locust (T)	1,308	81	1,033	997	39	.59	418	131	52	85	214	36.7
Hadison (T)	1,565	97	1.168	1.121	61	69	519	175	. 72	79	146	32.7
Hain (T)	1.241	100	910	869	38	67	421	126	59	50	108	32.0
Hifflin (T)	2,305	160	1.785	1.722	100	101	757	287	93	1 111	273	34.7
Hillville (B)	969	42	611	786	34	60	226	121	35	40	270	43.4
Hontour (T)	1.419	93	1.135	1.099	55	74	440	161	83	. 84	202	36.5
Ht. Pleasant (T)	1,383	99	1,053	4,141.	73	65.	495	151	51	45	130	33.2
Orange (T)	1,043	77	796	771	37	40	357	114	40	46	137	34.3
Orangeville (B)	504	27	417	401	12	15	97	50	22	16	189	48.9
Pine (T)	990	62	747	711	29	42	319	106	59	36	120	33.4
Roaring Creek (T)	478	. 25	364	354	20	1 12	153	41	21	40	67	37.2
Scott (T)	4,423	193	3,604	3,478	134	209	1,224	579	236	298	798	40.7
Stillwater (B)	223	16	172	167	9	13	68	28	14	5	30	34.3
Sugarloaf (T)	730	- 47	587	569	-10	25	214	81	44	53	134	39.6
County Total	63,202	3,747	51,006	49,413	5,227	4,597	17,455	6,241	2,810	3,109	9,974	34.1
Pennsylvania	11,881,643	797,058	9,392,357	9,086,833	551,216	675,559	3,657,322	1,213,845	552,378	607,406	1,829,106	35.0

Source: Department of Commerce, Bureau of Census.

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COLUMBIA COUNTY EDUCATIONAL ATTAINMENT, 1990

Persons 25 and over	39,589
less than 9th grade	4,020
9th - 12th no diploma	6,622
High School graduste	17,843
Some college, no degree	4,400
Assoc. degree	1,762
Bachelor's degree	3,044
Graduate or Prof. degree	1,898
Percent High School graduate or higher	73.1
Percent Bachelor's degree or higher	12.5

SOURCE: U.S. Department of Commerce, Bureau of Census.

TABLE 3-I

EDUCATIONAL ATTAINMENT FOR SURROUNDING COUNTIES, 1980 and 1990

	1980	******	1990	
County	I EIGE School Diploma or Eigeer	PERCENT BACHELORS DEGREE OR EIGHER	t High School Diploma Or Higher	PERCENT BACHELORS DEGREE OR EIGHER
Columbia	63.4	10.1	. 73.1	12.5
Luzerne	61.2	9.2	72.0	13.1
Lycoming	65.6	10.3	74.5	12.3
Montour	60.3	13.7	75.2	18.7
Northumberland	57.6	6.7	68.5	8.6
Schuylkill	56.2	6.1	68.4	8.1
Sullivan	61.0	8.0	70.2	8.6
State	64.5	13.5	74.7	17.9

Source: U.S. Department of Commerce, Bureau of Census.

In comparison to the state average, Columbia County is slightly below the figures for 1980 (64.6%) and 1990 (74.7%) for high school graduates. In regard to bachelors degree achievement, the County fell further from the state average from 1980 to 1990.

In reviewing the surrounding region, Columbia County ranks high in educational attainment. In 1980, the County's high school graduation rate was third highest at 73.1%, slightly under that for Lycoming and Montour Counties. With respect to bachelors degree achievement, Columbia County ranked third behind Montour and Lycoming Counties. For 1990, the County remained in third for high school diplomas, only slightly behind Montour and Lycoming Counties. In regard to bachelors degree achievement Columbia County remained third, behind Montour and Luzerne Counties.

Table 3-J breaks down the educational attainment for Columbia County municipalities. Fourteen (14) of the County's municipalities have graduate rates higher than the state average of 74.7%. Three (3) municipalities have graduation rates between 80 and 90%, including Main, Orange and Scott Townships. In regard to bachelors degree attainment, two (2) municipalities exceed the state average of 17.9%. These municipalities include Bloomsburg (21.8%) and Scott Township (23.6%).

3.4.5 <u>Income Characteristics</u>

The median household income of a municipality is closely related to its educational attainment level. Median income data for a municipality is reflective of the relative affluence of an area and illustrates a municipalities standard of living conditions. Therefore, municipalities with problem areas related to education and economic stability can be identified and addressed.

Table 3-K illustrates the income characteristics of Columbia County in comparison with several surrounding counties as well as the income characteristics for the State of Pennsylvania. The median household income for Columbia County ranks third at \$24,211, behind both Montour and Lycoming Counties, respectively. The statewide median household income is \$29,069, well above Columbia County. Despite the fact that Columbia County ranks third below neighboring counties and is nearly \$5,000 below the state's median household income level, it has the lowest percent of families below poverty In comparison with the level in the region at 5.9%. percent of families below poverty level, Columbia County is significantly lower at 5.9% than the state which is at 8.2%. Based upon these statistics it can be inferred that current living conditions within Columbia County are relatively favorable.

Table 3-L illustrates the median household income and percent of families below poverty level for the individual municipalities within Columbia County. From this Table it appears that Beaver Township, Catawissa Borough, and Orangeville Borough contain the highest concentrations of families living in poverty within Columbia County. In addition, all of these municipalities are well below the County average for educational attainment of High School Diplomas and College Bachelor Degrees.

TABLE 3-J

EDUCATIONAL ATTAINMENT, 1990

Persons 25 and Over

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	TOTAL	PERCENT WITH HIGH SHCOOL DEGREE OR HIGHER	PERCENT WITH BACHELORS DEGREE OR BIGHER
Pennsylvania		74.7	17.9
Columbia County	39,589	73.1	12.5
Beaver Township	599	65.1	4.2
Beaton Borough	623	72.9	10.0
Benton Township	714	77.7	.10.4
Berwick Borough	7,521	66.9	6.3
Bloomsburg Town	5,497	73.9	21.8
Briar Creek Borough	351	66.7	4-6
Briar Creek Township	1,983	72.6	8.1
Catavissa Borough	1,137	71.8	. 9.7 .
Catavissa Township	700	78.3	- 16-0
Centralia Borough	. 55	43.6	•••
Cleveland Township	671	69.9	8.6
Conyngham Township	. 717	62.8	3.8.
Pishing Creek Township	915.	75.3	11,4
Franklin Township	- 404	68.6	10.9
Greenwood Township	1,258	74.2	10.3
Baalock Township	1,050	72.0	13.7
Jackson Township	347	69.2	2.9
Locust Township	900	77.3	11.2
Madison Township	. 991	70.9	11.0
Kain Township	- 764	82,6	17.1
Mifflin Township	1,521	76.3	. 7.B
Killville Borough	692	73.8	16.0
Nontour Township	970.	77.3	15.7
Mt. Pleasant Township	872 .	76.3	16.9
North Centre Township	1,196	77.8	12.0
Orange Township	694	81.0	17.6
Orangeville Borough	356	65.2	9.6
Pine Township	640	68.0	639
Roaring. Creek Township	322	74.8	6.5
Scott Township	3,158	81.8	23.6
South Centre Township	1,296	75.6	11.6
Stillwater Borough	142	79.6	9.9
Sugarloaf Township	533	72.4	9.8

Sources U.S. Department of Commerce, Bureau of Census.

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TABLE 3-K

COLUMBIA COUNTY MEDIAN HOUSEHOLD INCOME AND PERCENT OF FAMILIES BELOW POVERTY LEVEL, 1989

MUNICIPALITY	MEDIAN BOUGEHOLD INCOME - 1989	POVERTY LEVEL
Pennsylvania	29,069	8.2
Columbia County	24,211	5.9
Luzerne County	23,600	8.3
Lycoming County	25,552	8.4
Montour County	27,260	. 6.0
Northumberland County	22,124	8.4
Schuylkill County	23,028	7.7
Sullivan County	20,107	10.9

SOURCE: U.S. Department of Commerce, Bureau of Census.

COLUMBIA COUNTY INCOME STATISTICS, 1990 Percent Household **Pamily Below** Median Poverty Level Pennsylvania Columbia County Beaver Township Benton Borough Benton Township Berwick Borough 29,069 8.2 24,211 24,500 22,917 26,393 20,423 20,871 5.9 9.1 9.3 8.0 / Bloomsburg.Town 6.3 Briar Creek Borough Briar Creek Township 20,882 27,226 9.7 3.1 Catavissa Borough Catavissa Township 20,509 . 14.1 31,600 0.7 Centralia Borough 16,667 2,3 Cleveland Township Conyngham Township 26,850 20,325 6.7 Fishing Creek Township Pranklin Township Greenwood Township 28,065 5.3 27,000 5.6 23,110 29,219 9.5 2.4 Hemlock Township Jackson Township Locust Township 25,298 4.3 26,065 8.2 6.9 5.7 Madison Township 26,471 29,453 27,759 Maison Township Main Township Mifflin Township Millville Borough Hontour Township 5,0 23,641 6.5 27,800 6.4 Mt. Pleasant Township North Centre Township Orange Township 28,080 5.1 29,196 2.1 29,934 6.6 Orangeville Borough 22,917 11.9 Fine Township Roaring Creek Township Scott Township Stuth Centre Township Stillwater Borough 25,733 4.9 23,977 2.9 31,023 1.4 26,122 21,459 21,713 4.3

TABLE 3-L

SOURCE: U.S. Department of Commerce, Bureau of Census.

Sugarloaf Township

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3.2

Table 3-M provides a matrix of the poverty thresholds in 1989 by size of family and related number of children under 18 years of age. It should be noted that the "Size of Family Unit" column in Table 3-M is a total and is inclusive of the number of related children indicated by the matrix. These criteria have been used to determine levels of poverty for the State and its Counties and Municipalities.

3.4.6 <u>Family/Household Characteristics</u>

The makeup of Columbia County's population in relation to its housing characteristics provides insight as to present and future needs for housing and family services. It also provides an indication of the general suburban or rural nature of the community. Table 3-N illustrates the distribution of households and families throughout the county and its municipalities, as well as the state as a whole.

Columbia County averages 2.53 persons per household, and 2.99 persons per family. Both are slightly under the state average, and reflects the small town and rural mix of the county. (As per the Bureau of Census a household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, group of rooms, or a single room that is occupied as separate living quarters. A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption).

In reviewing the local municipal figures, the rural municipalities as a general rule have a higher number of persons per household, while the more populated municipalities have lower averages (i.e. Beaver (2.86), Franklin (2.8), Greenwood (2.82), Madison (2.92), Mt. Pleasant (2.88), versus Berwick (2.35), Bloomsburg (2.35), Catawissa Borough (2.31), Centralia (2.03), and Millville (2.34). The same also holds generally true for persons per family, with highs being Beaver (3.25) and Main (3.22) Townships, and lows including Centralia (2.72), and Bloomsburg (2.83).

Table 3-O reflects the breakdown of family and non-family households in Columbia County by municipality. As indicated, the County has a slightly higher percentage of family households (70.7%), than the State (70.1%). In addition, 28 of Columbia County's municipalities have higher percentages of family households than the state. With respect to the percentage of female householders, 8.6% are found in the County, as opposed to 11.3% for Pennsylvania.

TABLE 3-M

COLUMBIA COUNTY POVERTY THRESHOLDS IN 1989 BY SIZE OF FAMILY AND NUMBER OF RELATED CHILDREN UNDER 18 YEARS

	Hatabhad	RELATED CHILDREN UNDER 18 YRARS								
Size of Family Unit	Average Thresholds	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	\$ 6,310		1			·		·		
Under 65 years	6,451	\$ 6,451	· .	1 · ·				· .	·	
65 years and over	5,947	5,947								1.
Two person	8,076									
Bouscholder under 65 years	8,343	8,303.	\$ 8,547							
Householder 65 years and over	7,501	7,495	8,515				d the		· ·	
Three persons	9,885	9,699	9,981	\$ 9,990	· ·					
Four persons	12,674	12,790	12,999	12,575	\$12,619	· ·	1. I.			·
Five persons	14,990	15,424	15,648	15,169	14,798	\$14,572				l.·
Six persons	16,921	· 17,740	17,811	17,444	17,092	16,569	\$16,259		:	
Seven persons	19,162	20,412	20,540	20,101	19,794	19,224	18,558	\$17,828		
Bight persons	21,328	22,830	23,031	22,617	22,253	21,738	21,084	20,403	\$20,230	
Nine or more persons	25,480	27,463	27,596	27,229	26,921	26,415	25,719	25,089	24,933	\$23,973

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SOURCE: U.S. Department of Commerce, Bureau of Census.

TABLE 3-N

COLUMBIA COUNTY HOUSEHOLD AND FAMILY CHARACTERISTICS, 1990

			Pamilies		1
Municipality	All Households	All Households	Total	Persons Per Household	Persons Per Family
Pennsylvania	11,583,219	4,495,966	3,155,989	2.53	2.99
Columbia County	59,515	23,478	16,604	2.57	3.1
Beaver (T)	928	325	. 261	2.86	3.25
Benton (B)	958	381	273	2.51	. 3.0
Benton (T)	1,094	408	328	2.68	3.03
Berwick (B)	10,840	4,618	3,004	2.35	2.94
Bloomsburg (Town)	9,244	3,926	2,003	2.35	2.83
Briar Creek (B)	616	239	. 169	2,.59	3.04
Briar Creek (T)	3,010	1,135	893	. 2.65	3.02
Catawissa (B)	1,683	727	481	2.31	- 2.89
Catawissa (T)	1,037	377	311	2.75	3.09 .**
Centralia (B)	63	31	- 18,	2.03	2.72
Cleveland (T)	997	366	289	2.72	3.14
Conyngham (T)	1,038	400	299	2.6	3.08
Fishing Creek (T)	1,378	505	413	2.73	3.02
Franklin (T)	624	223	176	2.8	3.18
Greenwood (T)	1,972	679	543	2.82	3.18
Bemlock (T)	1,546	589	460	2.62	2.99
Jackson (T)	508	199	157	2.55	2.87
Locust (T)	1,308	506	397	2.59	2.98
Hadison (T)	1,565	536	450	2.92	3.19
Hain (T)	1,241	428	348	2.9	. 3.22
Hifflin (T)	2,305	837	678	2.75	3.08
Millville (B)	858	367	242	2.34	2.94
Nontour (T)	1,419	557	434	2.55	2,9
Ht. Pleasant (T)	1,383	480	3,98	2.88	3.17
North Centre (T)	1,860	670	551	2.76	3.08
Orange (T)	1,009	363	303	2.78	3.08
Orangeville (B)	363	136	109	2.67	3.06
Pine (T)	990	362	292	2.73	3.07
Roaring Creek (T)	478	· 181	138	2.64	3.13
Scott (T)	4,409	1,798	1,349	2.45	2.86
South Centre (T)	1,891	· 754	555	. 2.51	2.93
Stillwater (B)	223	83	672	2.69	3.06
Sugarloaf (T)	730	289	214	2.53	2.97

Source: U.S. Department of Commerce, Bureau of Census, 1990.

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TABLE 3-0

	Famil	y Households	·]	Non-Family Households		,	· ·		1	Townsh
Hunicipality	Total	Harried Couple Family	Female Householder No Husband	Total	Householder Living Alone	Householder Living Alone Over 65	Percent Family Households	Percent Pemale Bouseholder, No Busband Present	Percent Bouseholder Living Alone	Householder Living Alone Over 65
Pennsylvania	3,155,989	2,502,072	507,008	1,339,977	1,150,694	526,264	70.1	11.3	25.6	12.6
Columbia County	16,604	13,856	2,020	6,874	5,666	2,958	70.7	8.6	24.1	11.7
Beaver (T) Beaton (B)	261	218	22	64	60	31	80.3	6.8	18.5	9.5
Benton (T)	328	283	1 20 1	80	1 77	1 . 36 /	PO.4	7.1	17.6	0.3
Bervick (B)	3.004	2.266	563 1	1.614	1.457	882	65.0	12.2	11.6	1 19.1
Bloomsburg (Town)	2,003	1.524	383	1.923	1.287	569 . /	51.0	9.7	32.8	14.5
Briar Creek (B)	169	1 137	26	69	53	24	71.0	10.9	22.2	10.1
Briar Creek (T)	893	787	1 77 1	242	208	100	78.6	6.8	18.3	8.8
Catawissa (B)	481	363	96	246	222	132	66.2	13.2	30.5	18.2
Catawissa (T)	311	. 284	1 20 1	66	61	1 24 /	82.5	5.3	16.2	6.4
Centralia (B)	1 18	14	2	1 13	1 12	1 7 /	58.1	6.5	38.7	22.6
Cleveland (T)	289	255	24	ר די ו	71	32	79.0	6.6	19.4	8.7
Conyngham (T)	299	251	1 33 1	i 101 '	97	66	74.8	8.3	24.2	16.5
Fishing Creek (T)	413	373 1	23	ľ · 92 '	81	45 1	91.8	4.6	16.0	8.9
Franklin (T)	1 176	1 157 /	1 12 1	1 47 '	41 . 41	1 15 1	78.9	5.4	18.4	6.7
Greenwood (T)	543	472	51	1 136 '	116	57	80.0	7.5	17.1	8.4
Hemlock (T)	460	404	1 22]	i. 129 ⁷	111 /	55 /	78.1	5.4	18-8	9.3
Jackson (T)	1. 157	142	1 7.1	42 /	35	25 1	/ . 78.9 /	3.5	17.6	12.6
Locust (T)	1 397 /	344	30	109 ⁷	101	1 . 47 1	78.5	5.9 /	20.0	9.3
Madison (T)	450 '	408	25	86 /	73	1. 31 1	64.0 .!	1 . 4.6. 1	13.6	5.8
Main (T)	348 '	309	24	80 /	65	23 /	81.3 /	5.6	15.2	5.4
Hifflin (T)	678 '	587	(73)	. 159 /	1 137	(78 [.])	81.0	1 10.7	1. 16.4 /	9.3
Hillville (B)	242 '	196 1	36	125	1 118 /	[·. 73]	i 65.9 /	9.8	32.2	19.9
Hontour (T)	1 434 ''	369	38	126	106	.37	77.9	8.8.	19.0	6.6
Ht. Pleasant (T)	/ 398 /	363	27	82	65	1 31]	82.9	1. 6.8 1	13.5	6.5
North Centre (T)	l 551 [/]	482	1 43	122	106 /	1 37 · 1	81.9	6.4	15.8	1 5.5
Orange (T)	/ 303 [/]	271	16	60 /	55 /	23	i 83.5 · I	1 5.3 1	1. 15.2 1	6.3
Orangeville (B)	109	101	1 7.	. 27 /	1 . 27 /	10	80.1	1 5.1 1	19.8	13.2
Pine (T)	292	250	1 27		63 /	32	1 0 .1 /	1 7.5 1	1 17.4 /	8.8
Roaring Creek (T)	138 /	120	i 9	43 /	40 /	1 24	76.2	1 5.0 1	22.1	13.2
Scott (T)	1,349 /	1,213	108	449 1	383 /	216	i .74.0. j	1 6.0]	21.3	12.0
South Centre (T)	555 1	451	83	199	167 /	[88]	73-6	. 11.0	22-1	11.7
Stillwater (B)	672	62	3	16 /	14 /	10	80.7	1 3.6 1	16.9	12.0
Sugarloaf (T)	214	193	15	75 /	67	i 38 j	74.0	1 5.2 1	23.2	13.1

COLUMBIA COUNTY HEAD OF HOUSEHOLD CHARACTERISTICS, 1990

Source: U.S. Department of Commerce, Bureau of Census.

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Another statistic that has implications for human services and senior citizens is the percent of persons over 65 living alone. Columbia County exceeds the state average of 11.7% with 12.6% of its householders fitting into this category. Significant percentages of senior citizens over 65 and living alone reside in a number of local municipalities including Berwick (19.1%), Catawissa Borough (18.2%), Centralia (22.6%), and Millville (19.9%).

Typically, female householders and persons over 65 living alone fall into the low and moderate income brackets. These groups are generally more dependent upon County and Municipal facilities and services. Therefore, it should be noted that over 20% of the total County households fit into one of the two above classifications.

3.5 County and Municipal Population Projections

In making population projections for small to medium-sized communities, projections are difficult to obtain with any degree of accuracy. Regional influences weigh heavily and any change in economic development or migration and natural growth characteristics can cause severe changes in the growth trends of a municipality. Therefore, population projections were developed for Columbia County, its municipalities and surrounding counties and the counties in the SEDA-COG region. These projections have been developed for the period of 2000 to 2030.

Population projections refer to future population levels. Population projections indicate what population changes might occur, given assumptions inherent in the projection method and data. Typically, several sets of population projections are developed, each set embodying a different set of assumptions. Project sets may represent minimum, maximum and midpoint growth rates, but all projections are plausible. However, a population forecast, on the other hand, is judgmental. A population forecast is the set of projections deemed most likely to occur.

Population projections were developed employing three different models which are as follows:

Historical Trend Extrapolation Model

This model developed population projections based upon population counts from 1930 to 1990. From these population counts an average percentage of change in population per decade was determined. This average percentage change per decade was then used to project future population counts using the 1990 Census population counts as a base.

State Water Quality Management Plan (SWOMP) Model

The "Least Square" population model allows for the derivation of projected population figures for various municipalities. A population forecasting curve is developed using the least squares method on population statistics of the last three (3) decades. A projected population is computed for each municipality based upon the forecasting curves.

First, the forecasting curve is fitted using a series of equations with both defined and undefined variables. Using the prior three (3) decades' population for a municipality, in ratios of 1, 2, and 3, respectively for the earliest through the latest of the three (3) decades, a population forecasting curve for the municipality is determined by the least squares method. Next, a combination of weighing factors are determined by using the least standard deviation. The correct combination of three (3) weighing factors is determined by using census population records from 1940 to 1980, to project 1990 These 1990 population projections were populations. adjusted so that the summation of all projected 1990 populations is equal to the 1990 PSU State total population. Thus, based on this adjustment, a best fit combination of weighing factors is derived.

Finally, an average growth rate is derived from previous base decades, and used in conjunction with the weighted factors to develop an estimate of the future population projection.

Example:	2030 pop	pulation	1 =	12,280,	462
	Average	growth	rate =	.00864	

2030 population = 12,280,462 x (1.0 + .00864) = 12,386,565

Housing Construction Activity Extrapolation Model

This model developed population projections based upon persons per household for 1990 in combination with the change in the number of occupied housing units in each municipality between 1980 and 1990. The number of housing units in 1980 was subtracted from the number of housing units in 1990. This value (change in number of occupied housing units) was then added to the 1990 value to get the number of housing units projected for 2000. The number of housing units in 2000 was then multiplied by the average number of persons per household as
determined for each municipality. The result of these computations is the projected population figure. This procedure was repeated for future decades through 2030, using the same value for the change in occupied housing units.

Table 3-P contains surrounding County population projections based on the average population change from 1950 to 1990.

Table 3-Q contains municipal population projections based on the average population change from 1930 to 1990.

Table 3-R contains the county-wide distribution of a weighted average future population estimate by municipality.

Table 3-S contains a ratio correlation of residential building permits issued between 1980 and 1990 to the average household size in 1990.

TABLE 3-P

COLUMBIA COUNTY SEDA-COG REGION AND SURROUNDING COUNTIES POPULATION PROJECTIONS 2000 - 2030

	2000	2010	2020	2030
Centre	142,478	163,992	188,755	217,257
Clinton	37.368	37.555	37.743	37,931
Columbia	65,983	68,886	71,917	75,081
Juniata	22.234	23,968	25.837	27,853
Luzerne	312.726	298.028	284.021	270.672
Lycoming	123.340	128,150	133.148	138.341
Mifflin	46.844	47.500	48.165	48.839
Montour	18,196	18.669	19,155	19.653
Northumberland	91,932	87.336	82,969	78,821
Derry	46 730	57 029	60,100	68,326
Cohumikill	41 602	121 406	121 048	112 165
dendy LALL	41,002	131,400	51 120	113,103
Bnyder	40,972	43,763	51,120	57,101
Sullivan	5,945	5,791	5,640	5,494
Union	40,264	44,814	49,678	55,514
TOTALS	1,130,421	1,138,880	1,150,444	1,165,111
Pennsylvania				
Totals	12.238.092	12,605,235	12,983,392	13.372.894

Source: Nassaux-Hemsley, Inc. projections based on 1950 - 1990 population trends.

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TABLE 3-Q

MUNICIPAL POPULATION PROJECTIONS USING HISTORICAL TREND EXTRAPOLATION

2000 - 2030

· · ·				• •
•	2000	2010	2020	2030
Beaver (T)	941	954	968	981
Benton (B)	1,004	1,052	1,103	1,156
Benton (T)	1,186	1,286	1,393	1,511
Berwick (B)	10,899	10,823	10,747	10,672
Bloomsburg (Town)	13,111	13,819	14,565	15,351
Briar Creek (B)	721	845	989	1,158
Briar Creek (T)	3,443	3,939	4,507	5,155
Catawissa (B)	1,634	1,587	1.541	1.496
Catavissa (T)	1,188	1,362	1.561	1.785
Centralia (B)	45	32	23	16
North Centre (T)	2,172	2,537	2,964	3,462
South Centre (T)	2,337	2,889	3.571	4.413
Cleveland (T)	- 1,014	1,031	1,049	1.067
Conyngham (T)	904	787	686	597
Fishing Creek (T)	1,487	1,604	1,731	1.868
Franklin (T)	653	.684	716	750
Greenwood (T)	2,219	2,496	2,808	3,159
Hemlock (T)	1,693	1,854	2,030	2.223
Jackson (T)	538	571	605	641
Locust (T)	1,343	1,380	1,417	1,455
Madison (T)	1,781	2,067	2,306	2,625
Hain (T)	1,454	1,705	1,998	2,341
Mifflin (T)	2,570	2,866	3,195	3,563
Millville (B)	1,082	1,209	1,350	1,508
Montour (T)	1,630	1,873	2,152	2,473
Mt. Pleasant (T)	1,629	1,919	2,261	2,663
Orange (T)	1,287	1,588	1,960	2,418
Orangeville (B)	522	540	559	578
Pine (T)	1,116	1,257	1,417	1.597
Roaring Creek (T)	. 475	472	469	467
Scott (T)	5,281	6,306	7,529	8,989
Stillwater (B)	. 234	245	257	269
Sugarloaf (T)	. 777	826	879	936
County Total	68,370	74,405	81,306	89,343

Source: Nassaux-Hemsley, Inc. projections based on 1930 - 1990 population trends.

TABLE 3-R MUNICIPAL POPULATION PROJECTIONS STATE WATER QUALITY MANAGEMENT PLAN

2000 - 2030

·	,			
	2000	* 2010	2020	2030
Beaver (T)	1,024	1,103	1,142	1,154
Benton (B)	911	873	813	787
Benton (T)	1,086	1,064	1,018	968
Berwick (B)	10,282	9,468	9,137	9,018
Bloomsburg (Town)	12,518	12,454	12,075	11,630
Briar Creek (B)	623	610	589	562
Briar Creek (T)	3,193	3,329	3,351	3,298
Catawissa (B)	1,638	1,652	1,587	1,532
Catawissa (T)	1,131	1,207	1,240	1,244
Contralia (B)	- 53	54	53	. 51 -
Cleveland (T)	1,056	1,100	1,106	1,087
Conyngham (T)	982 -	895	864	853
Pishing Creek (T)	1,435 .	1,473	1,463	1,441
Pranklin (T)	6.89	742	768	775
Greenwood (T)	2,014	2,031	1,984	1,929
Hemlock (T)	1,532	1,495	1,427	1,353
Jackson (T)	542	567	572	563
Locust (T)	1,405	1,480	-1,503	1,490
Hadison (T)	1,712	1,830	1,981	1,887
Hain (T)	1,350	1,436	1,470	1,469
Hifflin (T)	2,363	2,391	2,342	2,282
Hillville (B)	954	934	889	842
Montour (T)	1,486	1,427	1,386	1,313
Ht. Pleasant (T)	1,454	1,504	1,502	1,470
North Centre (T)	2,136	2,371	2,513	2,589
Orange (T)	1,313	1,551	1,721	1,841
Orangeville (B)	495	483	458	432
Pine (T)	1,002	1,001	969	933
Roaring Creek (T)	476	471	452	431
Scott (T)	4,574	4,664	4,601	4,512
South Centre (T)	1,868	1,830	1,747	1,659
Stillwater (B)	223	220	211	200 .
Sugarloaf (T)	823	-57-900	942	959
County Total	64,343	64,610	63,776	62,554

Source: Pennsylvania Department of Environmental Resources (SWQMP).

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TABLE 3-S MUNICIPAL POPULATION PROJECTIONS USING HOUSING CONSTRUCTION ACTIVITY

	1990	2000	. 2010	2020	2030
Beaver (T)	928	1,155	1,381	1,607	1,833
Benton (B)	958	941	926	911	896
Benton (T)	1,094	1,177	1,260	1,343	1,426
Berwick (B)	10,976	10,838	10,824	10,810	10,796
Bloomsburg (Town)	12,439	13,146	13,847	14,547 -	15,248
Briar Creek (B)	616	580	. 544	507	471
Briar Creek (T)	3,010	3,191	3,373	3,556	3,739
Catawissa (B)	1,683	1,927	2,176	2,426	2,675
Catawissa (T)	1,037	1,221	1,405	1,590	1,774
Centralia (B)	63	0	· · 0	(· 0·.	{· 0' i
Cleveland (T)	997	1,148	1,300	1,452	1,605
Conyngham (T)	1,038	905	770	634	499
Pishing Creek (T)	1,378	1,638	1,897 -	2,157	2,416 .
Pranklin (T)	624	7.17	809	901 .	994
Greenwood (T)	1,972	2,076	2,236	2,397	2,558
Eemlock (T)	1,546	1,624	1,706	1,787	1,869
Jackson (T)	508	630	• 752	875	997
Locust (T)	1,308	1,525	. 1,744	1,963	2,183
Madison (T)	1,565	1,857	2,149	2,441	2,733
Hain (T)	1,241	1,491	1,740	1,989	2,239
Hifflin (T)	2,305	2,640	2,978	3,317	3,655
Hillville (B)	969	1,066	1,164	1,262	1,359
Montour (T)	1,419	1,443	1,466	1,489	1,512
Ht. Pleasant (T)	1,383	1,601	1,820	2,039	2,258
North Centre (T)	1,860	2,249	2,641	3,033	3,425
Orange (T)	1,043	1,371	1,732	2,093	2,455
Orangeville (B)	504	336	310	283	256
Pine (T)	990	1,133	1,278	1,422	1,567
Roaring Creek (T)	478	560	642	723	805
Scott (T)	4,423	5,170 -	5,934	6,698	7,463
South Centre (T)	1,891	1,978	2,063	2,149	2,234
Stillwater (B)	223	258	293	328	363
Sugarloaf (T)	730	875	1,020	1,164	1,308
County Total	63.199	68,467	74.180	79,893	85.610

2000 - 2030

Source: Nassaux-Hemsley, Inc. projections based on 1980 - 1989 residential building permit data and average 1990 household size.

3.6 County Population Forecasts

When considering the population projections developed using a combination of the three (3) different models, it is very likely that the County will continue to increase in total population through the year 2010. It is forecasted that Columbia County's population will increase to a total of 66,838 by the year 2000 and to a total of 70,504 by the year 2010. These figures represent a population growth rate in the County of 5.7% through the year 2000 and 5.5% from the year 2000 to 2010. These County population forecasts were developed by adding selected the forecasts of each municipality as made for the years 2000 and 2010, respectively. They are summarized in Table 3-T, and described in detail in Section 3.7.

TABLE 3-T SELECTED POPULATION PROJECTIONS BY MUNICIPALITY AND COUNTY TOTALS FOR YEARS 2000 AND 2010

Municipality	Number of People by Year		
· · ·	2000	2010	
Beaver(T)	1,024	1,103	
Benton (B)	911	873	
Benton (T)	1,177	1,260	
Berwick (B)	10,282	9,468	
Bloomsburg Town	13,111	13,819	
Blair Creek (B)	623	610	
Blair Creek (T)	3,443	3,939	
Catawissa (B)	1,634	1,587	
Catawissa (T)	1,221	1,405	
Centralia (B)	0	0	
(Cleveland (T)	1,056	· · 1,100	
Conyngham (T)	982	895	
Fishing Creek (T)	1,487	1,604	
Franklin (T)	689	724	
Greenwood (T)	2,014	2,031	
"Hemlock (T)	1,624	1,706	
Jackson (T)	538	571	
Locust (T)	1,405	• 1,480	
Hadison (T)	1,712	1,830	
Main (T)	1,350	1,436	
Mifflin (T)	2,570	2,866	
Millville (B)	1,066	1,164	
Nontour (T)	1,630	1,873	
Mt. Pleasant (T)	1,601	1,820	
North Centre (T)	2,172	2,537	
Orange (T)	1,331	1,551	
Orangeville (B)	522	- 540	
Pine (T)	1,116	. 1,257	
ROATING CROCK (T)	475	472	
SCOTT (T)	5,170	5,934	
South Centre (T)	1,891	1,978	
DILLIWATER (5)	234	. 245.	
Sugarical (T)	<u> </u>	825	
Columbia County Total	66,838	70,504	
		1	

Source: Nassaux-Hemsley, Inc. population forecasts.

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3.7 <u>Municipal Population Forecasts</u>

Although Columbia County as a whole is forecasted to continue its moderate increase in population through the year 2010, various individual municipalities will grow in population, while others will decrease in population. Based upon past growth trends, planned infrastructure improvements and environmental constraints, population forecasts by municipality have been developed.

3.7.1 Beaver Township

Beaver Township has experienced a population growth of 210 people or 29.2% from 1980 to 1990. Despite the physical limitations imposed by the steep slopes of Nescopeck, McCauley and Buck Mountains, new development and population growth may be expected to continue in the valley areas of the Township. In addition, access to I-80 (major east-west transportation corridor) is available via S.R. 339. However, lack of public water and sewer facilities will restrict accelerated growth. Therefore, it is forecasted that the population of Beaver Township will continue to increase to 1,024 by the year 2000, and 1,103 by the year 2010.

3.7.2 Benton Borough

Benton Borough experienced a population decline of 23 people or 2.3% from 1980 to 1990. The Borough, like many other Pennsylvania Boroughs has experienced a declining population over the past two (2) decades. Currently, there are no new industry or employment centers projected for location in the Borough. Despite the presence of public water and sewer facilities and undeveloped agricultural lands within the Borough, it is projected that the Borough will continue to lose population at a rate similar to that of the past two (2) decades. Therefore, it is forecasted that the population of Benton Borough will continue to decrease to 911 by the year 2000 and 873 by the year 2010.

3.7.3 <u>Benton Township</u>

Benton Township experienced a population decrease of 15 people or 1.4% from 1980 to 1990. However, when considering the out-migration of people from Benton Borough; the state-wide trend of population increases occurring in rural Townships; and the planned sewer extension from Benton Borough to adjacent areas of the Township; it is projected that the Township will reverse trends and experience a moderate increase in population over the next twenty (20) years. Therefore, it is forecasted that Benton Township will increase its population to 1,177 by the year 2000 and to 1,260 in the year 2010.

3.7.4 Berwick Borough

Berwick Borough experienced a population decrease of 854 people or 7.4% from 1980 to 1990. The Borough, like many other Pennsylvania Boroughs, has experienced a declining population over the past two (2) decades. Despite the Borough's availability of public water and sewer facilities, it is projected that the Borough will continue to decrease in population at a rate similar to that of the past two (2) decades. Therefore, it is forecasted that the population of Berwick Borough will decrease to 10,282 by the year 2000 and to 9,468 by the year 2010.

3.7.5 Town of Bloomsburg

The Town of Bloomsburg increased in population by 722 people or 6.2% from 1980 to 1990. Bloomsburg is the County Seat as well as the major population center in Bloomsburg currently has access to Columbia County. public water and sewer facilities, and serves as one of the County's major employers (Bloomsburg University). Although much of the land available for development is located within the one-hundred year flood plain of the Susquehanna River, in-fill development and development in other agricultural/open space lands and wooded lands not within the identified floodplain is expected to occur. This population growth rate is expected to be similar to that which has occurred over the past two (2) decades. Therefore, it is forecasted that the population of the Town of Bloomsburg will increase to 13,111 by the year 2000 and to 13,819 by the year 2010.

3.7.6 Briar Creek Borough

Briar Creek Borough decreased in population by 21 people or 3.3% from 1980 to 1990. The Borough, like many other Pennsylvania Boroughs, has experienced a declining population over the past decade. However, with the planned extension of sewer services, it is expected that the Borough will stabilize in population. Therefore, it is forecasted that Briar Creek Borough will slightly increase its population to 623 by the year 2000 and slightly decrease its population to 610 by the year 2010.

3.7.7 Briar Creek Township

Briar Creek Township which is located adjacent to Briar Creek Borough and the Borough of Berwick, decreased in population by 78 people or 2.5% from 1980 to 1990. However, with the projected extension of sewer service from Briar Creek Borough, the Township's population is expected to increase over the next two (2) decades. In addition, the Township's close proximity to U.S. Route 11 and the presence of undeveloped agricultural/open space lands will make development in the Township more attractive. Therefore, it is forecasted that the Township will increase in population to 3,443 by the year 2000 and to 3,939 by the year 2010.

3.7.8 Catawissa Borough

Catawissa Borough increased in population by 115 people or 7.3% from 1980 to 1990. The Borough, unlike many other Pennsylvania Boroughs, has experienced an increase in population over the past decade. Despite the Borough's accessibility to public sewer facilities, it is projected that the Borough will lose population through the year 2010. Therefore, it is forecasted that the population of Catawissa Borough will decrease to 1,634 by the year 2000 and 1,587 by the year 2010.

3.7.9 <u>Catawissa Township</u>

Catawissa Township experienced an increase in population of 123 people or 13.5% from 1980 to 1990. This trend was facilitated by the extension of sewer service from Catawissa Borough. With substantial undeveloped agricultural/open space lands and wooded lands and accessibility to public sewer facilities, it is projected that the population of the Township will continue to grow. Therefore, it is forecasted that the population of Catawissa Township will increase to 1,221 by the year 2000 and 1,405 by the year 2010.

3.7.10 Centralia Borough

Centralia Borough had 63 people in 1990. However, due to the mine-fire and the federal program established to purchase all properties within the Borough, it is projected that all persons in the Borough will be relocated by 1994. Therefore the population of the Borough will be 0 by the year 2000 and 0 in 2010.

3.7.11 <u>Cleveland Township</u>

Cleveland Township increased by 85 people or 9.3% from 1980 to 1990. Although the Township contains large areas of undeveloped agricultural/open space lands favorable for placement of on-lot sewage disposal systems, much of the land is currently participating in an established Agricultural Security Area and/or the "Clean and Green" Program. However, moderate population growth is projected to continue. Therefore, it is forecasted that the population of Cleveland Township will increase to 1,056 by the year 2000 and to 1,100 by the year 2010.

According to the most recent draft of the Cleveland Township Comprehensive Plan issued in 1993, projections using arithmetic and geometric models were made for the Township for the years 2000 and 2010. These projections for the Township ranged from 1,144 to 1,197 in the year 2000 and 1,260 to 1,372 in the year 2010. However, no official forecasts were made.

3.7.12 Convngham Township

Conyngham Township decreased in population by 157 people or 13.1% from 1980 to 1990. The Township has experienced extensive mining activities and encompasses portions of the area underlain by the underground mine-fire which originated in Centralia Borough. In addition, a substantial part of the northern portion of the Township contains physical development constraints such as steep slopes and floodplains. Therefore, it is forecasted that Conyngham Township will continue to decrease in population to 982 by the year 2000 and 895 by the year 2010.

3.7.13 Fishing Creek Township

Fishing Creek Township increased in population by 91 people or 7.1% from 1980 to 1990. Based upon the available undeveloped agricultural/open space lands and its proximity to S.R. 487 (a minor north to south arterial), the Township is expected to continue its increasing population trend through the year 2010. However, population growth in the Township is projected to remain moderate due to the lack of public water and sewer facilities. Therefore, it is forecasted that Fishing Creek Township will continue to increase in population to 1,487 by the year 2000 and 1,604 by the year 2010.

3.7.14 Franklin Township

Franklin Township increased in population by 83 people or 15.3% from 1980 to 1990. Although there are substantial undeveloped agricultural/open space lands remaining in the Township and soils suitable for on-lot sewage disposal, it is projected that the Township will experience only minimal to moderate growth over the next two (2) decades. This projection is based upon the fact that much of the undeveloped agricultural/open space lands are participating in established Agricultural Security Areas and/or the "Clean and Green" Program, absence of public water and sewer facilities to serve new development, and the existence of a limited transportation network. Therefore, it is forecasted that Franklin Township will continue to increase in population, but to only 689 by the year 2000 and to 724 by the year 2010.

According to the most recent draft of the Franklin Township Comprehensive Plan issued in 1993, projections using arithmetic and geometric models were made for the Township for the years 2000 and 2010. These projections for the Township ranged from 769 to 869 in the year 2000 and 883 to 1,100 in the year 2010. However, no official forecasts were made.

3.7.15 Greenwood Township

Greenwood Township increased in population by 87 people or 4.6% from 1980 to 1990. Some agricultural/open space lands and wooded lands are available for future development. In addition, S.R. 254 serves as a minor arterial which traverses the Township in an east-west direction in the southern portion of the Township through Greenwood Valley. However, due to the lack of public water and sewer facilities and the predominance of marginal soils for on-lot sewage disposal, it is expected that growth will be moderate. This growth is expected to mainly occur in the Greenwood Valley section of the Township due to the rugged terrain found in the northern portion of the Township. Therefore, it is forecasted that Greenwood Township will increase in population at a rate similar to that experienced over the past decade and reach 2,014 by the year 2000 and to 2,031 by the year 2010.

3.7.16 <u>Hemlock Township</u>

Hemlock Township decreased in population by 33 people or 2.1% from 1980 to 1990. Despite losing population over the past decade, the Township is expected to reverse this trend based upon the proposed construction of a public

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sewer facility to serve the Village of Buckhorn, Fernville and Exit 34 of I-80; as well as the Township's accessibility to S.R. 42 and I-80. However, such growth will be limited to a moderate rate due to the relatively rugged terrain found throughout the Township. Therefore, it is forecasted that the Township will grow in population to 1,624 by the year 2000 and 1,706 by the year 2010.

3.7.17 <u>Jackson Township</u>

Jackson Township increased in population by 49 people or 10.6% from 1980 to 1990. Undeveloped lands are found within the valley areas and along the existing roadway system of the Township. Although population growth is projected to continue at a moderate rate within the Township, it will be limited by the absence of public water and sewer facilities, marginal soils for on-lot sewage disposal, and a rugged physical terrain. Therefore, it is forecasted that Jackson Township will continue to increase in population to 538 by the year 2000 and to 571 by the year 2010.

3.7.18 Locust Township

Locust Township increased in population by 156 people or 13.1% from 1980 to 1990. This growth trend is expected to continue over the next two (2) decades because of the Township's access to S.R. 42, its vast areas of undeveloped land, and it contains soils generally suitable for on-lot sewage disposal. However, growth will remain moderate, and restricted to specific areas due to the absence of public water and sewer facilities. In addition, a majority of undeveloped land in the Township is participating in an established Agricultural Security Area and/or the "Clean and Green" Program. Therefore, it is forecasted that Locust Township will continue to increase in population to 1,405 by the year 2000 and to 1,480 by the year 2010.

3.7.19 <u>Madison Township</u>

Madison Township increased by 192 people or 14% from 1980 to 1990. Substantial agricultural/open space lands and wooded lands remain undeveloped. In addition, the Township is very accessible via S.R. 44, S.R. 254 and S.R. 642. However, accelerated growth will be restricted by the absence of extensive public water and sewer facilities and the presence of marginal soils for on-lot sewage disposal. Therefore, it is forecasted that Madison Township will continue to increase in population at a rate similar to that of the past decade and to 1,712 by the year 2000 and 1,830 by the year 2010.

3.7.20 Main Township

Main Township increased in population by 145 people or 13.2% from 1980 to 1990. Despite limited accessibility sewer facilities to public water and and the participation of certain undeveloped agricultural/open space lands in established Agricultural Security Areas and/or the "Clean and Green" Program, the Township is projected to continue its increasing growth trend through the year 2010. This is based upon the Township's accessibility via S.R. 339 and the presence of soils generally suitable for on-lot sewage disposal. Therefore, it is forecasted that Main Township will continue to increase in population at a rate similar to that of the past decade and to 1,350 by the year 2000 and to 1,436 by the year 2010.

3.7.21 <u>Mifflin Township</u>

Mifflin Township increased by 113 people or 5.2% from 1980 to 1990. Despite the lack of extensive public water and sewer availability and the participation of a majority of undeveloped agricultural/open space lands in an established Agricultural Security Area and/or the "Clean and Green" Program, the Township is projected to continue its population growth through the year 2010. This projection is based upon the Township's accessibility via S.R. 339 and I-80, the presence of soils suitable for on-lot sewage disposal and substantial areas of undeveloped land. Therefore, it is forecasted that Mifflin Township will continue to increase in population to 2,570 by the year 2000 and to 2,866 by the year 2010.

3.7.22 <u>Millville Borough</u>

Millville Borough decreased by 6 people or 0.6% from 1980 to 1990. Unlike many other Boroughs within Pennsylvania which are expected to continue losing population over the next two (2) decades, Millville is projected to slightly increase in population through the year 2010. With the availability of public water and sewer facilities and some undeveloped agricultural/open space lands, the Borough is projected to experience moderate population growth. Therefore, it is forecasted that Millville Borough will increase in population to 1,066 by the year 2000 and to 1,164 by the year 2010.

3.7.23 <u>Montour Township</u>

Montour Township decreased in population by 161 people or 10.2% from 1980 to 1990. Despite the decrease in population, the Township contains substantial undeveloped agricultural/open space lands and wooded lands available for development. In addition, Montour Township is very accessible via U.S. Route 11. An existing public water system in part of the Township and a newly developed sewage treatment system in the U.S. 11 corridor should also attract growth. The forecasted population for Montour Township should show an increase to 2,036 by the year 2000 and 2,321 by the year 2010.

3.7.24 Mt. Pleasant Township

Mt. Pleasant Township increased by 107 people or 8.4% from 1980 to 1990. Substantial areas of undeveloped wooded lands and undeveloped agricultural/open space lands exist within the Township. In addition, the Township is located in close proximity to the major population center in the County, the Town of Bloomsburg. Restrictions limiting accelerated growth include absence of public water and sewer facilities and moderate to severe soil limitations for on-lot sewage disposal. Despite these limitations to development, the Township is projected to continue its population growth through the year 2010. Therefore, it is forecasted that Mt. Pleasant Township will increase in population to 1,601 by the year 2000 and 1,820 by the year 2010.

3.7.25 North Centre Township

North Centre Township increased in population by 337 people or 22% from 1980 to 1990. The Township's proximity to major transportation corridors such as U.S. Route 11 and I-80, as well as its abundance of undeveloped lands and favorable soils for on-lot sewage disposal, will continue to make the Township attractive for development in the future. Therefore, it is forecasted that the population of North Centre Township will continue to increase to 2,172 by the year 2000 and to 2,537 by the year 2010.

3.7.26 Orange Township

Orange Township increased in population by 313 pyople or 42.9% from 1980 to 1990. Despite the absence of public water facilities, and the participation of a majority of undeveloped agricultural/open space lands in an established Agricultural Security Area and/or the "Clean and Green" Program, the Township is still projected to experience population growth through the year 2010. Factors encouraging growth in the Township include the future availability of public sewer service provided by Orangeville Borough, good accessibility via S.R. 93 and S.R. 487, and substantial lands with minor physical limitations available for development. Therefore, it is forecasted that Orange Township will increase in population to 1,331 by the year 2000 and to 1,551 by the year 2010.

3.7.27 Orangeville Borough

Orangeville Borough, like many other Pennsylvania Boroughs, lost population from 1980 to 1990. The Borough decreased in population by 3 people or 0.6% over the past decade. Nonetheless, the Borough is expected to reverse this trend and grow slightly through the year 2010. The projected growth is based upon the Borough's planned installation of a public sewer system. In addition, the undeveloped Borough contains some space areas. Therefore, it is forecasted that Orangeville Borough will experience a slight increase in population to 522 by the year 2000 and to 540 by the year 2010.

3.7.28 Pine Township

Pine Township increased in population by 45 people or 2.7% from 1980 to 1990. Despite the absence of public water and sewer service availability and substantial areas restricting development due to steep slopes, the Township is expected to continue population growth through the year 2010. Factors encouraging growth within the Township include good accessibility via S.R. 42 and S.R. 442, and substantial undeveloped valley agricultural/open space lands adjacent to the above referenced transportation corridors. Therefore, it is forecasted that Pine Township will increase population to 1,116 by the year 2000 and to 1,257 by the year 2010.

Upon review of the 1991 Pine Township Comprehensive Plan population projections, it was evident that the above forecasts fall mid-range between the lowest and highest projections made for the Township for both years 2000 and 2010. However, no official population projections were made.

3.7.29 Roaring Creek Township

Roaring Creek Township increased in population by only 9 people or 1.9% from 1980 to 1990. Population within the Township is projected to stabilize and slightly decrease through the year 2010. This projection is based upon absence of public water and sewer service, and physical' limitations including steep slopes and severe limitations for on-lot sewage disposal, which encompasses approximately 75% of the Township's land area in Therefore, it is forecasted that Roaring combination. Creek Township will experience a decline in population to 475 by the year 2000 and 472 by the year 2010.

3.7.30 Scott Township

Scott Township increased in population by 472 people or 11.9% from 1980 to 1990. Population growth within the Township is expected to continue at an accelerated rate through the year 2010. Factors encouraging the accelerated population growth include availability of public water and sewer facilities, good accessibility via S.R. 487 and I-80, and substantial undeveloped lands exhibiting minor physical limitations. Therefore, it is forecasted that Scott Township will continue its accelerated growth to 5,170 by the year 2000 and further to 5,934 by the year 2010.

3.7.31 South Centre Township

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South Centre Township decreased in population by 150 or 0.8% from 1980 to 1990. Although a slight decrease in population occurred from 1980 to 1990, the Township had grown in population by 19.2% in the previous decade. Based upon the remaining undeveloped lands adjacent to U.S. Route 11 and I-80 and the increased growth in housing construction, it is projected that the Township will resume its growth in population in the future. Therefore, it is forecasted that the Township will increase in population to 1,891 by the year 2000 and to 1,978 by the year 2010.

3.7.32 Stillwater Borough

Stillwater Borough increased in population by 22 people or 10.9% from 1980 to 1990. Considering the steep slope, floodplain, and wetland limitations and the absence of public water and sewer facilities, population is projected to stabilize or increase slightly through the year 2010. Therefore, it is forecasted that Stillwater Borough will increase slightly in population to 234 by the year 2000 and to 245 by the year 2010.

3.7.33 <u>Sugarloaf Township</u>

Sugarloaf Township increased in population by 116 people or 18.9% from 1980 to 1990. In considering the physical limitations to development imposed by steep slopes, soils unsuitable for on-lot sewage disposal, and the absence of public water and sewer services, population growth is expected to be moderate. Therefore, it is forecasted that Sugarloaf Township will increase in population to 777 by the year 2000 and 826 by the year 2010.

3.8 <u>Summary of Findings and Conclusions</u>

Part of the basic framework of Columbia County's Comprehensive Plan is that of analyzing and understanding the population growth or decline of the County, and formulating population projections. The population and demographic characteristics of the County are the forces that drive the needs and services that a local government must provide and plan to provide.

Columbia County on average has increased its population by approximately 4% every decade since World War II. The County's growth rate is slightly higher than that of Pennsylvania; over the same time period, which averaged 3.5% per decade; but only 1/3 of that experienced by the nation as a whole which was 12.7% per decade.

From 1980 to 1990, the greatest percentage of growth occurred in Townships in proximity to established Borough's with public sewer facilities. However, the Borough of Berwick and the Town of Bloomsburg remain the major population centers of the County.

The median age of County residents in 1990 was 34.1 years which was slightly lower than the state median of 35 years. The largest portion of Columbia's population (approximately 7,000 or 11%) fell into the age group of 18 to 21 years of age. In addition, Bloomsburg had the lowest median age at 23 years due to the influence of the University, whereas Centralia Borough had the oldest population within the County with a median age of 53.8 years.

As of 1990, approximately 73.1% of Columbia County residents had received a high school diploma. Whereas, only 12.5% had achieved a college Bachelor's Degree.

The median household income in Columbia County was measured at \$24,211 in 1990. This figure was well below the state average of \$29,069. However, in 1990, only 5.9% of Columbia County families were living in poverty whereas 8.2% were statewide. In addition, Columbia County's poverty rate is lower than any of its surrounding counties. Therefore, based upon these statistics it can be inferred that current living conditions in the County are more favorable in comparison to the surrounding counties of the region.

In 1990, the County averaged 2.53 persons per household and 2.99 persons per family, both of which were slightly under the statewide average. However, over 20% of the County households are headed by females or by senior citizens 65 years of age or older living alone. Typically, these households tend to fall within the low and moderate income classification and are more dependent upon County provided facilities and services.

County and municipal population projections were developed using three (3) different projection models. These models included: the Historical Trend Extrapolation Model; the Least Square Model; and the Housing Construction Activity Extrapolation Model. Projections were developed for the period of 2000 to 2030.

Pursuant to the development of these various sets of population projections, a forecast of which projections were determined to be most likely to occur were made on both a municipal and county level. It was determined that Columbia County is forecasted to reach a population of 66,838 by the year 2000 and a population of 70,504 by the year 2010, with most of the population growth occurring in Townships within the County. Therefore, when considering the population growth which is forecasted, Columbia County must prudently plan to provide sufficient land areas, facilities and services to accommodate this expanding population.

4. ECONOMIC ANALYSIS

CHAPTER 4

ECONOMIC ANALYSIS

4.1 Introduction

This section of the comprehensive plan is intended to provide an analysis of the economic base in Columbia County. The regional economy, to a large degree conditions the amount of land development that occurs. For example, an expanding economy determines market and employment opportunities, and in turn more land would be required for economic development activities. A review of the past and present economic base will be undertaken. An examination of local industry and labor force characteristics will also be accomplished. This information is used to identify current needs and to project future demands for transportation, economic development, community facilities and public utilities.

4.2 Past Economic Base

The economic base of Columbia County was once dependent on the extraction and use of natural resources in the form of lumbering, primary metal production, coal mining, agricultural production, and water transportation. The eventual depletion of these resources necessitated a move toward the development of production industries such as large textile and carpet mills. Many small businesses developed along side of these manufacturing industries in order to service the needs of the employees and residents of the County. Furthermore, Bloomsburg University has developed into a large source of employment for the County, and also serves to enrich the educational and cultural aspects of the County.

4.3 Present Economic Base

Employment by industry can serve as a reasonable indication of the composition of the County's present economic base. Table 4-A provides a breakdown of employment for industries located in Columbia County. The manufacturing industry continues to employ the largest amount of workers which was 8,205 as of / 1990. Although the manufacturing sector employs the largest number of workers it has experienced a 5.8% decrease in the number of employees since 1979. The importance of manufacturing in Columbia County can be illustrated by the fact that approximately 21.4% of the manufacturing establishments employ 100 or more workers each and the manufacturing sector has an annual payroll of 117.5 million dollars. Despite the recent shrinkage of the manufacturing sector it remains a vital part of Columbia County's economic base, and therefore it will be reviewed in more detail.

TABLE 4-A

INDUSTRY	1979	1990	t CHANGE
Agriculture, Forestry Pishing, & Mining	1216	995	-22.2
Construction	808	1922	137.9
Manufacturing	8710	8205	- 5.8
Transportation, Communications and Public Utilities	984	741	-24.7
Wholesale and Retail Trade	4163	5371	29.0
Finance, Insurance and Real Estate	560	1062	89.6
Services	2643	5955	125.3

COLUMBIA COUNTY EMPLOYMENT BY INDUSTRY 1979 - 1990

NOTZ: Does not include government employees, railroad employees, self-employed farm employees etc.

NOTE: Information is for County industries regardless of employee residency.

Source: U.S. Department of Commerce, Bureau of Census, County Business Patterns for 1979 and 1990.

The service industry includes lodging places, personal services, business services, auto repair, amusement and recreation, health services, and other miscellaneous services. Columbia County has experienced substantial growth in the service industry which is reflected by an employment growth of 125% or 3,312 additional employees from 1979 to 1990. As of 1988, the service industry had an annual payroll of 14.7 million dollars in Columbia County. The service sector is becoming an integral component of the County's economic base. The primary service industry in the County is health services which, in 1986, employed 1,689 workers.

Other growth industries in Columbia County are Construction, wholesalers and retail trade, finance, insurance, and real estate. The construction industry has experienced an increase in the number of employees from 808 in 1979 to 1,922 in 1990 which has resulted in a 137.9% growth rate. The wholesale and retail trade industry has experienced moderate growth illustrated by a 29% or a 1208 person increase in number of employees. The wholesale and retail trade industry has a combined annual payroll of 30.4 million dollars. Finally, the finance, insurance and real estate sector shows an 89.6% or 502 person increase in the number of employees from 1979 to 1990. The agricultural, forestry, fishing, and mining industries include such operations as fish farms, tree farms, veterinarians, and U.S. residents working for international agencies. These industries have seen a decline in the number of employees from 1979 to 1990.

Columbia County has seen a substantial decrease in the number of total farms and the amount of land area being farmed from 1982 to 1987. In 1982 there were 822 total farms whereas by 1987 there were only 701 which corresponds to a 14.78 decrease. U.S. Census data no longer details the number of employees of privately operated farms. As a result, no data for the number of farmers was available for Columbia County. Despite these facts, the industry has shown an increase in revenue growth. This increase is reflected by the cash receipts from sales of agricultural crops from 1982 to 1989 which increased from \$23,774,000 to \$33,028,000 respectively.

The present principal industries, ranked by employment, within Columbia County are as included in Table 4-B.

The principal industries within the County reflects the importance and dominant role that manufacturing and service plays in Columbia County's economy. The manufacturing and service sector combine to account for seven (7) of the top ten (10) principal industries listed on Table 4-B.

After looking at the principal industries in Columbia County, it becomes apparent that both the Bloomsburg and Berwick areas have a major economic influence on the entire County. Bloomsburg and Berwick functions as trade and service centers for Columbia County, as well as employment centers for the surrounding rural municipalities, such as Catawissa Township, which offers very few employment opportunities within the municipality. The importance of Bloomsburg and Berwick to the economic vitality of Columbia County cannot be stressed enough. Many of these smaller, rural municipalities act as "bedroom" communities and depend heavily on the Bloomsburg and Berwick area for employment. Therefore, the present economic stability of the County is hinged upon the economic strength of the Bloomsburg and Berwick areas.

Since manufacturing is such an important component of Columbia County's economy, a detailed examination is necessary for gaining a thorough understanding of the County's present and future economic base. Overall, manufacturing still remains the primary economic activity within Columbia County. As of 1990, 8,025 individuals were employed in the manufacturing sector which accounts for over one-third of the labor force.

INDUSTRY	SIC	INDUSTRY CODE TITLE	NO. OF Employees	LOCATION
Wise Foods (Bordens)	2099	Food Prepara- tion NEC	1,300	Briar Creek (Berwick)
Bloomsburg Univ. Comm of PA	8221	Colleges & Universities	825	Bloomsburg
Mages Industries	5023	Automobile Carpeting	800	Blocmsburg
Berwick Indus- trial Dev. Auth.	•	• • • •	700	Briar Creek (Berwick)
Heinz Pet Products	2047	Grain Mill Products	626	South Centre Township
Berwick Hospital Corp.	8062	Rospital	. 600	Briar Creek (Berwick)
Hilco	2653	Textiles	600	Bloomsburg
Deluxe Homes Inc.	2452	Prefabricated Wood Buildings	430	Briar Creek (Berwick)
Bloomaburg Bospital	8026	Hospital	425	Bloomsburg
Lady Ester Lingerie Corp.	2341	Women's and Children Underwear	413	Briar Creek (Berwick)

COLUMBIA COUNTY PRINCIPAL INDUSTRIES, 1990

Note: Principal industries are those considered to be in the top ten in terms of employment.

Note: No data available (ND).

Source: Dun's Business Directory.

The dominant manufacturing industries in Columbia County are: textile mill products, apparel and other textile products, food and kindred, and other fabricated metal products. These manufacturing industries have been greatly affected by the standardization of process (mechanization) and the product life cycle. Therefore, they are industries suited for lowcost, semi-skilled labor. Thus, in recent years these types of manufacturing industries have begun to relocate to geographical regions where low-cost, unskilled labor and land exist in great quantities. As a result, many traditional Northeastern manufacturing regions, such as Columbia County, are losing these types of manufacturing companies and jobs to southern and foreign markets. Therefore, the shrinkage of the manufacturing sector is likely to continue, and therefore a diversified future economic planning perspective is vital to Columbia County's future economic survival.

4.4 <u>Civilian Labor Force Characteristics</u>

In addition to looking at growth trends in the County, it is also important to consider Civilian Labor Force Characteristics in terms of composition and employment stability. Table 4-C, provides a breakdown of the County's Civilian labor force and its recent change in composition.

Using a four-year period (1986 to 1990), employment showed an increase of 22.8%. This was a net gain of 4,498 jobs in the County. As of 1990, manufacturing (33.8%), wholesale and retail trade (22.1%), and services (24.6%), accounted for 80.5% of the total civilian labor force which illustrates the importance of these three industrial groups to the economic stability of Columbia County. Table 4-C illustrates the relative stability and steady growth in employment throughout the past four-year period, with only manufacturing and transportation, communication, and public utilities experiencing a net loss of employees.

Columbia County's unemployment rates have varied from 1981 to Mirroring the "health" of the national economy, the 1991. County's unemployment rate has dropped from 10.1% in 1980 to 8.6% in 1991. The highest rate during this period was recorded in 1982, at 12.8%, during the heart of a major recessionary period that extended from 1981 to 1983. Columbia County's lowest unemployment rate of 5.5% in 1990 was experienced during the fast growth period from 1987 to 1990. The onset of the 1990 - 1991 recession brought with it much higher unemployment rates. These unemployment rates have continued into 1992, and currently Columbia County's unemployment rate stands at 9.0% (somewhat higher than compared to the state unemployment rate of approximately 7%). of June, 1992, the neighboring counties of Montour, As Northumberland, Schuylkill, and Luzerne showed unemployment rates of 5.9%, 9.3%, and 9.9% respectively.

	1986	1990
Labor Porce	19,758	24,256
1 Unemployed	.8.11	5.54
8 Employed in Manufacturing	47.01	33.81
<pre>% Employed in Wholesale/ Retail Trade</pre>	20.81	22.11
Semployed in Finance, Insurance, and Real Estate	3.18	4.41
& Employed in Services	. 16.81	24.61
Smployed in Agricultural, Porestry, Fishing and Mining	1.81	4.18
& Employed in Construction	3.81	7.91
Semployed in Transportation Communications, & Public Utilities	6.81	3.18

COLUMBIA COUNTY CIVILIAN LABOR FORCE BETWEEN 1986 AND 1990

Ence: U.S. Department of Commerce, Bureau of Census, County Business Patterns, Pennsylvania for 1986 and 1990.

Table 4-D gives an additional indication of the labor force characteristics in Columbia County. This table illustrates the number of individuals who reside in Columbia County but either work in the County, work outside the County, or work outside the State of residence. Furthermore, Table 4-E gives a statistical illustration of persons working outside the home and the approximate travel time to their place of work.

TABLE 4-D

EMPLOYED PERSONS BY PLACE OF WORK 16 YEARS AND OLDER, 1990

· · · · · ·	NUMBER	I OF TOTAL
Working in Columbia County	22,228	78.4
Working outside of Columbia County	5,812	20.5
Working outside State of Residence	288	1.1
TOTAL	28,328	100.0

SOURCE: Pennsylvania State Data Center

Table 4-E contains information about the general location of employers and how long residents take to travel to their workplace. A large majority of residents, 78.4%, work within the County. Approximately 20.5% of the residents work outside of the County, while only 1% work in another state. Οn average, residents who work outside the home travel approximately 18 minutes to work. Table 4-E illustrates that a fairly significant number of residents, 7,981 or 45.5%, travel between 20 and 34 minutes to work. This illustrates that many residents work within the County but still commute relatively long distances to work. In addition, this finding may be accounted for in that many of the smaller, rural municipalities serve as bedroom communities to Bloomsburg and Berwick which serve as the main "hubs" of economic activity within the County.

TABLE 4-E

A second s		
TRAVEL TIME TO WORK	NUMBER ·	OF TOTAL
0 - 4 minutes	1,686	6.1
5 - 9 minutes	4,943	18.0
10 - 14 minutes	5,473	19.9
15 - 19 minutes	4,526	16.5
20 - 24 minutes	3,793	13.8
25 - 29 minutes	1,540	5.6
30 - 34 minutes	2,648	9.6
35 - 39 minutes	491	1.7
40 - 44 minutes	452	1.6
45 - 59 minutes	1,088	3.9
60 - 89 minutes	562	2.0
90 or more minutes	203	0.7
TOTALS	27,405	100.0

COLUMBIA COUNTY PERSONS WORKING OUTSIDE THE HOME, 1990

SOURCE: Pennsylvania State Data Center.

4.5 <u>Regional Economic Perspective</u>

The Pennsylvania economy has experienced a shift of employment from manufacturing to the services, trade, and finance sectors. In general, this state-wide realignment of jobs has dictated the shift of employment that is occurring in Columbia County. Services, trade and finance, were the leading job producers in Pennsylvania since 1979 which is similar to the recent development and growth in Columbia County. Conversely, since that same time, manufacturing has been the big loser.

In Pennsylvania in 1979, the largest percentage of employees were in the manufacturing sector, accounting for 29.1% of the work force. In Columbia County in 1979, manufacturing also accounted for the largest percent of employees, with 48.5% of the work force. In comparison with the state, Columbia County's economic structure seems to have followed a similar pattern of development over the past 10 to 15 years.

In general, neighboring counties are following the same economic growth pattern as Columbia County. The growth that occurred in the service, trade and finance sectors in Columbia County also has occurred in the neighboring counties of Luzerne, Montour, and Schuylkill. The growth industries within the service sector were mainly business and health related such as computer and data processing, legal services, offices of physicians, and nursing and personal care. The trade sector experienced growth in industries related to eating and drinking places, and grocery stores. Finally, the finance sector saw most of its growth in holding companies such as fire, casualty and life insurance.

As expected, the decline in the manufacturing sector that occurred in Columbia County also occurred in its neighboring counties. The industries within the manufacturing sector that experienced substantial declines were the textile, apparel and basic metals industries.

4.6 Future Economic Prospects

The Scranton/Wilkes-Barre labor market area includes the following constituent counties: Columbia, Lackawanna, Luzerne, Monroe, Wayne and Wyoming. The projections detailed below in Table 4-F can be used to analyze economic trends and anticipate future economic developments. In general, detailing the future projections of employment by industry for the entire Scranton/Wilkes-Barre labor market area conveys a regional outlook of economic trends and future economic developments. Decisions on a future plan of economic growth activity for Columbia County will be aided by analyzing the regional perspective of future employment projections by industry as follows.

A long range outlook at employment trends by industry from 1988 to 2005 illustrates a continuing shift of employment in the Scranton/Wilkes-Barre labor market area (see Table 4-F). The long term shift from goods producing industries to service industries will continue throughout the projection period. Table 4-F illustrates an overall decline in total employment from 1988 to 2005. For the most part, this projected decline in employment is reflected by most industries. Future projections for manufacturing further support the current indications that this industry is experiencing significant decline and is expected to continue that trend.

Manufacturing, in both non-durable and durable goods, is forecasted to continue its decline into the year 2005. In the Scranton Wilkes-Barre labor market, employment in manufacturing accounted for 31.4% of the total employment in 1973, currently it accounts for only 19.7%, and is projected to decrease to 15.9% by the year 2005.

The farming and mining industries will experience a continuing decline in employment from the period of 1988 to 1995. This decline in the farming industry will lessen somewhat in the period from 1995 to 2005, but will still remain significant at approximately -2.33%. The mining industry is projected to exhibit a reversal of trends from 1995 to 2000 due to changes in energy demands for coal. Again, a marked decline in employment will occur in the period from 2000 to 2005.

Agricultural services, forestry, fisheries, and other include such operations as fish farms, tree farms, veterinarians, and U.S. residents working for international agencies. This employment industry is an extremely small portion of the total labor industry. Therefore, the somewhat misleading, high growth percentages can be attributed to significantly smallscale nature of the industry. This does not incorporate the local farmer population.

Finally, employment in industries such as construction, transportation and utilities, wholesale and retail trade, finance, insurance, and real estate are projected to exhibit substantial increases from the period of 1988 to 1995. Once again these industries will follow the overall, general trend of decline from 1995 to 2005.

		• .				,			-
	ABSOLUTE 1988	VALUE * 1995	1988 TO 1995 CHANGE	ABSOLUTE 1995	VALUE * 2000	1995 TO 2000	ABSOLUTI 2000	2005	2000 TO 2005 CHANGE
Total Employment	381.2	407.2	6.821	407.2	424.6	4.271	424.6	435.0	2.451
Farm	. 4.6	4.4	- 4.351	4.4	4.3	- 2.278	4.3	4.2	- 2.331
Non Farm	376.6	402.8	6.961	402.8	420.3	4.341	420.3	430.8	2.50%
Agricultural Services, forestry fishing and others	2.1	2.7	28.57%	2.7	3.1	14.81%	3.1	3.4	9.70%
Mining	1.0 '	0.9	- 10.05%	0.9	0.9	0.00%	0.9	0.8	-11.111
Construction	22.4	24.0	7.148	24.0	25.0	4.168 j.	25.0	25.6	2.401
Menufacturing	75.1	72.2	- 3.86%	72.2	71.1	- 1.52%	71.1	69.5	- 2.25
Non-durable goods	44.9	43.3	- 3.56%	43.3	42.7	- 1.40%	42.7	41.8	- 2.113
Durable goods	30.2	28.9	- 4.301	28.9 ·	28.3	- 2.10%	28.3	27.7	- 2.121
Transportation £ Public Utilities	20.3	22.2	9.361	22.2	23.3	4.95%	23.3	24.1	3.431
Wholesale Trade	17.1	- 18.4	7.60	18.4	19.2	4.35%	19.2	19.8	3.131
Retail Trade	68.6	73.4	7.001	73.4	77.1	5-04%	77.1	.79.2	2.721
Finance, Insurance Real Estate	21.3	22.8	7.00%	22.8	23.9	4.82	23.9	24.5	2.511
Services	101.5	117.8	16.101	117.8	127.7	8.401	127.7	134.6	5.401

FUTURE EMPLOYMENT PROJECTION NUMBERS AND RATES OF CHANGE FOR SCRANTON/WILKES-BARRE MSA FOR YEARS 1995 - 2005

TABLE 4-F

Thousands of jobs

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis Regional Projections to 2040, October, 1990. • • •

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Based on the regional economy prospectus, the following employment projections were made in Table 4-G for Columbia County to the year 2010:

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TABLE 4-G

COLUMBIA COUNTY EMPLOYMENT PROJECTIONS FOR YEAR 2010

ECONOMIC SECTOR	Number of Employees Reported In 1990	NUMBER OF Employees Projected IN 2010
Agriculture, Forestry, Fishing and Mining	995	1,313
Construction	1,922	2,185
Manufacturing	8,205	7,579
Transportation, Communication 1 Public Utilities	741	873
Wholesale 1 Retail Trade	5,371	6,974
Finance, Insurance & Real Estate	1,062	1,214
Services	5,955	7,736
Totals	24,251	27,874

Source: Nassaux-Hemsley, Inc. Projections.

Columbia County can no longer rely on its raw materials to provide an economic base, nor can it continue to heavily depend on the existing manufacturing sector. However, manufacturing industries will no doubt continue to be a major focus of state and local economic development initiatives.

State and local officials interested in economic growth should not overlook the potential of service industries in providing new jobs. Of the 10 industries projected to show the largest increase in number of jobs from 1994 to 1995, all are in the retail trade service sector. In addition, programs geared toward retaining and expanding existing industries are becoming increasingly important to maintaining future economic stability and vitality. Examples of these programs are identifying existing needs of firms such as labor training, improved transportation systems or providing capital for expansion and taking steps to address these needs.

4.6.1 Identification of Specific Economic Opportunities

One of the most important steps in evaluating economic development potential in Columbia County is through the assessment and identification of important locational attributes of the County. In order to target potential industries, it is important to know what attributes the County has that can be used to attract potential industrial activity. Therefore, a Business and Industrial Survey was formulated and sent to over 2,100 businesses and industries in Columbia County. Despite the disappointing 9% return, some pertinent information was received with respect to business and industrial advantages and opportunities available within the County.

In the recent business and industrial survey, businesses were asked to list reasons for their locational choice. The reasons that were listed are as follows:

1. Found suitable facility (54 responses)

- reasonable rent or lease
- suitable land

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- available store front
- suitable price
- existing facility

2. Access to markets and consumers (40 responses)

close to Hazleton and Wilkes-Barre

- exposure
- close to University
- central to service territory

Access to major transportation networks (18 responses)

- access to I-80
 - major transportation area

Parking facilities (7 responses)

- 5. Opportunity for expansion (7 responses)
 - additional property for expansion
- 6. Limited competition (2 responses)
- 7. Suitable climate (1 response)
- 8. Sufficient resources (1 response)
 - abundant raw materials

These locational attributes can be viewed as strengths, and used to attract future economic activity to Columbia County.

Information provided by the business and industrial survey showed that 152 of 194 respondents indicated that they are very small firms, employing less than 75 full time employees. Furthermore, only 12 indicated that they employ more than 75 full time employees. The number of full time positions will slowly decline, and therefore a need for future business creation and retention strategies exist. Overall, the employment patterns indicate a relative stability of the economic sector and reflect the rural nature of Columbia County.

A complete analysis of the results of the Business and Industrial Survey have been included in Chapter 11.

4.7 Summary of Findings and Conclusions

The economic analysis of this comprehensive plan is intended to provide an evaluation of the past, present, and future economic base, examine local industry, examine labor force characteristics and identify current economic needs.

Columbia County's economic history reflects a heavy dependence on the use of natural resources and primary production. The realization of eventual depletion of these resources spurred a move toward the manufacturing industries such as textile mills, fabricated metals and food and kindred.

Columbia County's present economic base continues to be centered on the manufacturing industry, but an analysis of employment trends illustrates that the manufacturing industry has been losing substantial ground, while other industries such as construction, finance, insurance, real estate, and services have been gaining. The agricultural sector remains a minor, but stable contributor to the economic base of the County. In general, the employment shift occurring in Columbia County is reflective of the trends occurring at the regional and state level.

The present principal industries of Columbia County, ranked according to employment, reflect two (2) key elements of Columbia County's economic base. First, the principal industries within the County show the importance and dominant role of the manufacturing and service industries in the County's economy. These two (2) sectors account for seven (7) of the top ten (10) principal industries in the County.

Second, the importance of Bloomsburg and Berwick as major trade and service centers is illustrated by the fact that all principal industries except one, are located in either Bloomsburg or Berwick. In general, the analysis of the present economic base shows that Columbia County's economic sector appears stable and strong. The civilian labor force characteristics reflect that employment has remained stable and has experienced moderate growth in the total number of jobs from 1986 to 1990.

Results of the business and industrial survey indicate that, of the 194 responding firms, 112 have been located at their current location for more than ten (10) years. Eighteen (18) firms have indicated that they have been located in Columbia County for over fifteen (15) years, thus indicating a general willingness to remain in Columbia County. Nearly 56.5% (99 respondents) indicated that they began operation of their current location. In addition, 96% of the respondents indicated that their current location was adequate for efficient operation.

In general, neighboring counties are following the same economic growth pattern as Columbia County. Growth occurring in the service, trade and finance sectors of Columbia County has also occurred in the neighboring counties of Luzerne, Montour, and Schuylkill. As expected, the decline in the manufacturing sector of Columbia County, has also occurred in neighboring counties.

Finally, a long range outlook at employment trends by industry from 1988 to 2005 illustrates a continuing shift of employment. The long term shift from goods producing industries to service industries is forecasted to continue throughout the projection period. Therefore, Columbia County can no longer rely on its raw materials to provide a steady economic base, nor can it continue to heavily depend on the existing manufacturing sector.

Total county employment is projected to increase by 3,623 or 14 percent in the next 17 years. Significant increases are forecast in the trade and service sectors. Both sectors are estimated to rise by approximately 30 percent each year between the years of 1990 and 2010. Besides agriculture, the other employment sectors showing growth are transportation communication and public utilities (17.74%); finance, insurance and real estate (14.33%); and, construction (13.70%). Manufacturing, on the other hand, is showing a decline (a loss of 626 jobs or 7.63%).

However, these results show that the manufacturing sector will continue to remain an important component of the economic base of Columbia County. Therefore, manufacturing industries will no doubt continue to be a major focus of State and local economic development initiatives. However State and local officials interested in economic growth should not overlook the potential of service industries in providing new jobs. When developing local business and industrial strategies, opportunities for retention and expansion of existing business and industry, as well as the attraction of new business and industry, must be incorporated as part of these strategies. In addition, emphasizing the business opportunities and County attributes available for economic development is essential to developing an effective County Economic Development Strategy.

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5. NATURAL FEATURES ANALYSIS

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CHAPTER 5

NATURAL FEATURES ANALYSIS

5.1 Introduction

The basis for a planning program is the land and the people that use it. The location and character of Columbia County's climate, topographic features, soils, geology, water resources, drainage, mineral resources and environmentally sensitive areas all make up the local physical environment. The local physical environment and the constraints which it imposes, greatly influences the type, intensity, and location of development and use of land that may take place.

5.2 <u>Climate</u>

Columbia County's climate is dominated by a humid and continental type. The County's weather systems usually originate out of the west and Central Plains area of the United States. To a lesser extent they have also been known to originate from the east, the Gulf of Mexico and, in larger part, from Canada. Precipitation is fairly evenly distributed throughout the year with slightly more falling in the spring and summer. Temperatures in the County rise and fall with consideration to elevation and the season of the year.

Weather changes in the County depend on a number of complex factors. Changes occur more frequently during winter and spring while during the summer and fall changes occur for a period of a week or more. Summers are hot and humid during the day with a cooling off period at night which makes them mild. Fall is predominated by dry and balmy days and cool nights. Winters in the County can be harsh or mild or a mixture of both. Cold spells can last 5 to 10 days and during the coldest periods temperatures usually fall below 20 degrees Fahrenheit. During the winter months the County's weather is controlled largely by winds coming off the Great Lakes and arctic blasts coming out of Canada. With all factors considered, the weather of Columbia County is quite variable.

Precipitation averages vary from season to season and area to area. The Susquehanna Valley Region of Columbia County usually receives less precipitation than the mountainous areas of the County, with annual averages of 37 to 40 inches. Outside the valley region, averages rise to 45 inches. The majority of rainfall occurs from April to September with 60 percent falling during this period. However, the main differences is precipitation between the wettest month, April, and the driest month February, which is slightly more than 3 inches. Snow cover also varies with elevation, in higher elevations snow covers the ground for most of the winter while snow in the valleys can only be found for a quarter of the winter. Snowfall averages range from 30 inches in the valleys to 45 inches in the higher elevations. During the spring thaw many streams will overflow their banks and some flooding may occur when the melt is accompanied by a heavy rainfall.

Temperatures in the County are also controlled by location and elevation. The Susquehanna Valley has higher average temperatures than the northern and southern parts of the County. Temperature changes are quite noticeable from day to day and can vary 20 degrees in the winter to 25 degrees in the summer. These changes can occur quite rapidly. During the summer the temperature can drop 30 degrees in 10 minutes during a thunderstorm, whereas changes this drastic usually take up to 12 hours during the winter.

Winds tend to be out of the west during the summer months and out of the northwest during winter months. Wind speeds usually average 8 to 10 miles per hour. However, sustained winds have been clocked into the fifty mile per hour range and gusts have been registered in the mid-sixty mile per hour range.

Mean relative humidity measured at 1:00 p.m. during the months of January 1991, April 1991, July 1991, and October 1991 was 65 percent, 52 percent, 54 percent and 59 percent respectively. During the summer, however, nighttime humidity readings rise to an average of 82 percent which can make the nights a bit uncomfortable.

Sunshine hours have a large impact on agriculture, recreation and evaporation processes. In 1991, the average number of hours spent clear of cloud cover was 1,675 hours, partly cloudy skies were present 2,527 hours, and cloudy skies were present 4,562 hours.

Climate is important to the community when considering agricultural aspects and recreation opportunities for obvious reasons. The length of the growing season, the amount of rainfall available during that season, how much sun will be available to feed the crops are all questions that a farmer must answer to ensure his livelihood. While climate may not have as much impact on development as it does on agriculture, it still has impacts. The placement of windbreaks, energy conservation questions, the best placement of solar panels, etc. are all questions that can be answered with a good understanding of the climate.
5.3 <u>Physiography/Topography</u>

Columbia County is entirely located within the Appalachian Mountain Section of the Valley and Ridge Physiographic Province. The numerous mountains which dissect the County provide the source of much of the region's picturesque beauty.

Columbia County, north and south, extends from the rugged escarpments of North Mountain to a group of parallel mountain ridges at the extreme south; Little Mountain, Big Mountain, and Locust Mountain. The surface features of Columbia County are as illustrated on Map 5-1.

Twelve miles south of North Mountain, jutting up from the surrounding low lands is Knob Mountain. This is really the abrupt termination of a great "V" shaped mountain extending eastward, the southern arm making Lee Mountain, the northern arm - Huntington Mountain. Knob-like Catawissa Mountain, also in a form resembling a "V", is located ten miles to the southeast. Its northern arm, after the interruption of the Mainville Gap, becomes Nescopeck Mountain. The southern arm, after a broad half circle, becomes Little Mountain and extends far west beyond the limits of the County. In the expanse between the Nescopeck Mountain and Catawissa Mountains are located the Hogback Mountain. The general trend of these mountains, with exception as noted, is slightly north of east to south of west.

Just west of Berwick, a moderate hill emerges from the general level, and becomes higher as it extends westward, becoming a full scale mountain west of Columbia County. "Turkey Hill," North of Bloomsburg, is actually part of this general formation called Montour Ridge.

Viewed from the side, these mountains, for the most part, have a long level profile of a fairly uniform height. North Mountain at places reaches 2,300 to 2,400 feet above sea level; the others up to 1,700 or 1,800 feet.

A lower group of elevations spread widely between these mountain ridges. They reach heights ranging from 800 to 1,000 feet. Their summits, for the most part, form fine rolling hilltop farms, except where streams have carved deep valleys with steep, sometimes precipitous sides. The stream bottom lands provide additional fertile agricultural areas.

The most level area of the County lies in a strip averaging 3,000 feet wide between and including the communities of Berwick and Bloomsburg, along the northern side of the Susquehanna River. This area is "river terrace", built up by deposits after the last advancement of the Continental glacier, when the stream was much wider.



5.3.1 <u>Slope</u>

The slope, or steepness, of land plays a major role in determining its potential for development. Based upon a generalized interpretation of contour data by the U.S. Geological Survey, all of the land area of the County was grouped into four categories with respect to the degree of slope. It was found that only about 29% of the land in the County has a slope of seven percent or less (rising at the rate of seven feet or less in one hundred feet). Approximately 30% of the land has a slope of eight to fifteen percent, 16.7% has a slope of sixteen to twenty-four percent, while 24.4% has a slope of twentyfive percent or more.

Table 5-A summarizes the development potential of the four slope categories aforementioned and should be used as a guide in the land use planning process.

As indicated by Table 5-A, land consisting of a general slope of 16% or greater, severely limits and many times prohibits various types and intensities of development. Map 5-2 has delineated those areas of the County which exhibit steep slopes that may be restrictive and/or prohibitive of development.

The distribution of the four slope ranges contained in Table 5-A is widely scattered throughout the County. Although some variation between different areas is apparent, there are no extensive sections of any one slope category. Generally, the greatest concentration of the steeper slopes is found in the northern and southern extremes of the County while the moderate slopes become more predominant in the area of the County lying between North Mountain to the north and Little Mountain to the south.

Other than the flatlands along Fishing Creek from Orangeville to North Mountain, along the north side of the Susquehanna River eastward from Bloomsburg, and at Mifflinville on the south side of the river; the most significant concentrations of relatively level land are in the central portion of Greenwood Township, the western portion of Madison Township, and in the North Centre There is also a relatively large section of Township. the County having a good concentration of fairly level land in the area comprising Locust Township and the western and eastern portions of the adjoining Cleveland and Roaring Creek Townships, respectively. This section is considered to be one of the better agricultural areas of the County. There are also some relatively isolated level valley strip areas located in Hemlock, Montour, Beaver and Conyngham Townships.



Page 5-6

COLUMBIA COUNTY SLOPE DEVELOPMENT POTENTIAL

	· · · ·
0 - 7% Slope	Land in this range is considered as relatively flat and is therefore the most desirable land for development. All types of land use compete for the areas in this category and is the only one suitable for most industrial development.
8-15% Slope	Land in this range can be readily used for development although more careful planning is required here than in the first group. Land in this category has a very limited potential for industrial development and is considered marginal for some agricultural activities. However, it is still suitable for commercial uses and generally produces the most attractive residential developments when properly platted.
16-24% Slope	Special review of development occurring on land within this range of slope will be necessary in order to protect adjacent properties and to avoid excessive development and municipal service costs. Industrial and commercial uses have been entirely eliminated from the development potentials although single family and possibly garden apartment residential uses are still practical.
25% & Over	Land in this category is generally considered Slope to be of little value for development and should be maintained in woodland or other natural open use.

Source: U.S. Geological Survey

5.4 Soils

Soils are the resultant product of the weathering of bedrock and the mixing of organic material combined with the effects of physical erosion and chemical weathering. Soil is the weathered material that covers the surface of the Earth. Due to the high variability of elements found in the soil, soil types tend to have a high rate of variability. Soils are constantly being formed and changed and a knowledge of the processes and types of soil available in a given area is needed for development and agricultural purposes.

Soils have different physical characteristics and limitations. Some areas may be covered with shallow soils while others may be deeply covered, and some may be stripped barren of soil altogether. Soils may be well or poorly-drained or even remain water-logged for extended periods of time, as in wetlands. All these factors will play a role in determining development types and patterns in a given area.

The composition of soils will also play a key role in development and agricultural patterns. Soils with a high degree of vegetative matter may be more suitable for agriculture, whereas soils with a high degree of acid deposition may be more suitable for development. For these reasons soils are classified as to their different types and quality.

Soils that have profiles almost alike make up a soil series. A series has major horizons which are similar in thickness, arrangement and other important characteristics. These series are named for features or places where a soil of that series was first found. With differences in such things as surface texture, stoniness, degree of erosion and other features affecting their use, further breakdowns in classification are made.

The physical characteristics of soils are not the only factor used in determining soil classifications. Grouping soils that are similar in suitability for a specified use is also a method used in soil surveys. An example of grouping soils that are similar in suitability for a specified use would include classifying a group of soils which are considered prime for use as farmland.

Soil series more often than not are found grouped together in the same area. Differences in percentages of one soil to another in these areas is another form of soil classification. Soil series that are grouped together have been termed soil associations. Each soil association is named for the major series of soils found in the association with the soil forming the majority of the area listed first and so on with decreasing percentages. While the name of an association may not include all the series found, many of these series occur in such small percentages that they are considered negligible. The soil associations found in Columbia County have been illustrated on Map 5-3 and a description of each association is contained in the following table.

5.4.1 Soil Limitations for Development

This section inventories and evaluates the effect of soil properties as limitations to development. There are three (3) major limiting areas in which soils within Columbia County have been evaluated, these include: limitations for disposal of sewage effluent; limitations for foundations of dwellings of three (3) stories or less; and limitations for streets and parking lots.

- Limitations for Disposal of Septic Tank Effluent -In areas where public sewer service is not available, it is essential to determine soil limitations with respect to the effective disposal of sewage effluent. These soil limitations may include one or a combination of the following:
 - Seasonally high or permanently high water table causes effluent to rise to surface areas.



TABLE 5-B

COLUMBIA COUNTY SOIL ASSOCIATIONS

SOIL ASSOCIATION	PHYSICAL DESCRIPTION
1. Lordstown - Oquaga Association	Reddish soil. For farming and non-farming they are limited by doughtiness, steep slopes, and many outcrops of shale sandstone. Conser- vation practices for soil and water are needed. Host valuable as wildlife areas. Hunting and hiking as main recreational uses.
2. Wellsborg - Morris - Ognaga Association	Made up of gently sloping and nearly level areas. They are stony and wooded in many areas. Only Wellsboro soils are good for farming but many of the soils can be used as grasslands and can produce good timber. Oquaga is the only good soil, in this association, for solid foundations, but effluent from septic tanks cannot be feasibly disposed of in these soils.
3. Cquaga - Wellsbord - Horris Association	Range from steep to shallow and from well-drained to poorly-drained. Mostly in cropland or woodland. It is not very suitable for farming or for disposing of septic tank effluent. This area can produce good timber and makes a good recreational area.
4. Chemango - Barbour - Pekin Association	Soils range from well-drained to moderately well-drained. Hade up largely from alluvial terraces and floodplains. Eas good potential for farming and timber production. Nuch is poor for septic tank effluent disposal and development is limited due to its location in flood prome areas.
5. Wooster - Ravenna - Lordstown Association	Found in areas of rolling hills in the northeastern part of the County. This area is moderately well- suited as farmland and is well-suited as woodland. Due to patterns of land use it makes good wildlife habitat. Areas with a seasonally high water table are not well-suited for development.
6. Weikert - Hartleton Association	Generally well-drained. Balf is in cropland and the rest is made up of woodland and small developed areas. Suitable for farming and forestry when used with appropriate conservation practices. Community development is suitable on favorable slopes.
7. Berks - Wetson Association	Well to moderately well-drained. Most of this area is presently used for general and dairy farming. The soils of this area are suitable for farming and timber production. These soils provide a good building foundation, but due to shallow bedrock, septic tank effluent is not readily disposable.
8. Westcoreland - Litz Association	Generally under farming land uses. Some areas are used for community development. Soils of this class produce good yields of most crops grown in the County and are the most fortile. These soils are best suited to agriculture.
9. Klinesville - Leck Kill Association	These soils are mostly farmed even though the area is not suited to cropland. Good for housing and recreation where slopes permit. Septic tank effluent can be disposed of in the Leck Kill series.
10. Oskalb - Edgemont Association	Nost of this area is in forest or mountains. Few areas are cultivated. Makes good timber land, use is limited by steep slopes. Recreation is also suitable.
11. Laidig - Buchanan Association	Nost is woodland. Limited farming and community development uses. Excellent for wildlife habitat due to proximity to woodland and cropland. Some areas can be developed as wildlife marshes.
12. Strip Mines Made Land Association	Strip mines and piles of spoil are the major components of this association. Hostly bars with no trees in much of the association.

Source: The Columbia County Soil Survey, 1967.

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- Flooding produces effects similar to high water tables.
- Steep or severe slope forces effluent to the surface along slopes as it drains downward.
- Shallowness to bedrock charges soils with effluent near and at the surface because of inadequate absorption area.
 - Ground water contamination is a result of insufficient filtration due to rapid and direct penetration to the water table.

Soils throughout the County have been evaluated with respect to their limitations for disposal of sewage effluent. Results of this evaluation and classification are illustrated on Map 5-4. There are numerous other site-specific locations where soils are not suitable for septic tank effluent disposal.

Limitations for Foundations of Dwellings of Three (3) Stories or Less - Soil properties considered, regarding limitations to construction of foundations for dwellings of three (3) stores or less, are those that affect the ease of excavation and capacity to support load and resist settlement under load. Those that affect excavation are wetness, slope, depth to bedrock and stoniness. Those that affect capacity to support load are wetness, susceptibility to flooding, density, plasticity, texture, and shrink-swell potential.

Soils throughout Columbia County have been evaluated with respect to their limitations for construction of foundations for dwellings of three (3) stories or less. Results of this evaluation and classification are illustrated on Map 5-5. It should be pointed out that there are numerous site-specific locations where soils are not suitable for the construction of foundations in addition to those shown on Map 5-5.

c. <u>Limitations for Streets and Parking Lots</u> - Soil properties that most affect design and construction of streets and parking lots are the load-supporting capacity, stability of the subgrade, and the workability and quantity of cut and fill material available. Wetness and flooding affect the stability of the cut and fill material. Slope, depth to bedrock, stoniness, and wetness affect the ease of excavation and amount of cut and fill needed to reach an even grade.

Soils throughout Columbia County have been evaluated with respect to their limitations for construction of streets and parking lots. Results of this evaluation and classification are illustrated on Map 5-6. There are numerous other site-specific locations where soils are not suitable for construction of street and parking lots.









5.4.2 <u>Hydric Soils</u>

A hydric soil is a soil that in its undrained condition is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Hydric soils are many times a prime indicator of the presence of wetland areas.

Hydric soils are defined by specific criteria. This listing of criteria which defines hydric soils is as follows:

a. All Histosols except Folists, or

b. Soils in Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, or Pell great groups of Vertisols that are:

1) Somewhat poorly drained and have a water table at less than 0.5 feet from the surface at some time during the growing season, or

2) Poorly drained or very poorly drained and have either:

- a) Water table at less than 1.0 feet from the surface at some time during the growing season if permeability is equal to or greater than 6.0 inches/hour in all layers within 20 inches, or
- b) Water table at less than 1.5 feet from the surface at some time during growing season if permeability is less than 6.0 inches/hour in any layer within 20 inches, or
- c) Soils that are ponded during any part of the growing season, or
- d) Soils that are frequently flooded for long duration or very long duration during the growing season.

Table 5-C contains an inventory and description of the hydric soils found within Columbia County.

It should be noted that Hydric Soils may potentially indicate the presence of wetland areas. However, a thorough on-site investigation would be necessary to confirm the presence of wetlands.

TABLE D-C COLUMBIA COUNTY - HYDRIC SOILS

CROTEC			HIGH	ATER	PERH.	FLOODING		HYDRIC CRITERIA	CAPABILITY CRITICAL		CLASS	
AND SUBGROUP	TEHPERATURE	DRAINAGB CLASS	DEPTH	HONTES	20 Inches	PREQUENCY	DURATION	Montes	NUHBER PHASE CRITE			6 SUB- Class
ALLIS (RYO108) AERIC HAPLAQUEPTS	HESIC	P	0 to -1.0	NOV. to JUNE	< 6.0	NONB			282	0-81 SIL, SIC 3-81 SICL, Bev Zr	n	414
BARBOUR (NYO189) HOVIRLIC DYSTROCHRIPIS	HESIC		3.0 to 6.0	JAN. to APR.	< 6.0	PREQUENT	Long	DEC. to APR.	. 4	FREQUENT		214
BASHER (NYO231) BOVAQURIC DYSTROCERIPIS	NESIC	ни	1.5 to 2.0	JAN. to Hay	< 6.0	FREQUENT	Long	DEC. to Apr.	4	ALL	· · . - ·	24
Bolly (080032) Typic Bovaquents	NESIC	VP,P	0 to 1.0	DEC. to Hay	< 6.0	Frequent	Long	NOV. to Hay	282	ALL	4	3₩
HOLLY PONDED (0H0210) TYPIC HOVAQUENTS	HESIC	VP	+1 to 0.5	JAN. to dec.	< 5.0	FREQUENT	V. LONG	SEPT. to June	282	ALL		3₩
HOLLY, RARELY PLOODED (0H0292) TYPIC HUVAQUENTS	HESIC	VP,P	0 to 1.0	DEC. to HAY	< 6.0	RARE			2B2	NLL		34
LICKDALS (HD0017) BUHIC Haplaquepts	MESIC	VP	0 to 0.5	NOV. to Hay	< 6.0	NONE			282	ALL		411
LICKDALE, STONY (HDOOB2) HUNIC HAPLIQUEPTS	KESIC	VP	+0 to [.] 0.5	NOV. to Hay	< 6.0				2B2	ALL	•	75
SHELMADINE (PAA0088) TYPIC FRAGIAQUULTS	MESIC	р	0 to 0.5	SEPT. to JUNE	< 6.0	NONE		. –	282	0 - 31 3 - 81 8 -151		4H 4H 4H
SUELMADINE STONY (PAOD89)TYPIC PRAGIAQUULTS	Hesic	P	0 to 0.5	BEPT. to JUNE	< 6.0	NONE			282	0 - 31 SIV 3 - 81 SIV 8 -151 SIV	, . , .	75 78 75

Yource: U.S. Department of Agriculture, Soil Con Vation Service.

5.5 <u>Geology</u>

Columbia County is underlain by rocks deposited from the Silurian Period through the Quaternary Period. In geologic terms, the rocks of this area are relatively young in age. All of the geologic beds underlying the County are sedimentary int origin. That is over time, sediment accumulated in the area, and, under extreme pressure, became sedimentary rock formations. These processes that have occurred in the past are presently at work in the County and are shaping the present landscape.

Map 5-7 provides a delineation of the geologic formations found in Columbia County. Table 5-D contains information on the physical characteristics of each geologic formation found throughout the County. Engineering characteristics of each geologic formation are also included in this table.

Geologic formations within Columbia County are broken down into groups on the basis of when the rock was formed. Silurian Period formations in the County are predominantly sandstone and shale, with some siltstone and claystone. Devonian Period formations are predominantly limestone and sandstone, with some siltstone, shale, and claystone. The Mississippian Period formations are predominantly sandstones, with some claystone, siltstone, and conglomerate. The Pennsylvanian Period formations are predominantly conglomeratic sandstone, siltstone, shale and coal. Finally, Quaternary Period formations are exclusively alluvium found along stream beds.

Engineering characteristics of rocks include ease of excavation, cut-slope stability, and foundation stability. These characteristics and their limitations must be considered when developing plans for construction of structures and roadways.

Ease of excavation is important in knowing what tools are needed and the degree of difficulty involved in removing bedrock for construction activities. The range for ease of excavation is from easy to difficult.

A poor cut-slope stability indicates an area of rockfall potential. Cut-slope stability aids in illustrating where rockfall hazard is potentially great. The range for cut-slope stability is from good to poor.

Foundation stability provides an indication of the degree to which various geological formations are conducive to construction of structure foundations. The range for foundation stability is from good to poor.



TABLE 5-D

COLUMBIA COUNTY GEOLOGIC FORMATIONS AND PHYSICAL CHARACTERISTICS

Period	Formation	Thickness of Bods	Physical Characteristics	Engineering Characteristics	
Pennsylvania	Allegheny and Pottaville Groups, undivided (PaP)	1,300'	Shale, sandstone, and coal; sandstone and some conglomerate dominate the lower part. Gray, fine- to coarse-grained sand- stone, siltatone, shale and some conglomerate and anthracite coal.	Excavation is difficult in sandstone and moderately easy in the rest of the bed. Cut-slope stability is fair. Foundation stability is good, but the formation should be excavated to sound bedrock.	
	Pottsvilla Group (Pp)	600+	Gray conglomerate, con- glomerate sandstone, silt- stone, and some anthracite coal.	Excavation is difficult in sandstone and moderately easy in the rest of the bed. Cut-slope stability is fair. Foundation stability is good, but the formation should be excavated to sound bedrock.	
Hississippian	Mauch Chunk Formation (Mmc)	50•	Brownish-gray to grayish red siltstone and clay- stone interbedded with brownish-gray to pale-red, poorly cemented, fine- grained sandstone; medium- grained to finely con- glomeratic sandstone occurs locally.	Excavation in this formation is difficult. Cut-slope stability is good. Foundation stability is good, but a careful examination for dis- tribution of solution openings should be included.	to the second
Mississippian	Pocono Formation (Hp)	2,000*	Light to medium-gray sandstons and conglomer- ate in upper part. Gray sandstons containing minor interbedded gray shale and gray, fine-to medium- grained orthoquartzite in lower part.	Excavation in this formation is difficult. Cut-slope stability is good, but rockfalls do occur when bedding and joint surfaces intersect and rock is steeply dipping toward the cut. Foundation stability is good.	
Devonian	Catskill Formation (Dck)	5,230'	Succession of greenish- gray and grayish-red fine to coarse-grained sand- stone and grayish-red siltstone and shale, some gray sandstone and con- glomerate are also present.	Excavation is difficult in this formation. Cut-slope stability is good, but drainage maintenance is required. Foundation stability is good, but shale and siltstone should be kept water free.	
	Trimmers Rock Formation (Dtr)	3,000*	Medium-gray to olive-gray interbedded siltstone, shale, and some fine- grained sandstone; dark- gray to grayish black shale at the base.	Excavation is moderately difficult in nature. Cut-slope stability is fair in siltstone and shale, but good in sandstone. Foundation stability is good, but should be excavated to sound material.	
	Hamilton Group and Onondaga Formations (Dho) undivided	2,450'	Nedium to dark gray silty claystone; some argil- laceous limestone near the top. Dark-gray to greenish-black on the bottom. Gray argillaceous limestone containing interbeds of calcareous and noncalcareous shale.	Excavation is moderately easy to difficult in nature. Cut-slope stability is good in sandstone, but only fair in shale. Foundation stability is good, but limestone should be thoroughly investigated for solution cavities.	
	Old Port Formation (Dop)	100*	Composed of discontinuous sequences of limestone, sandstone, shale and chert.	Excavation is difficult in nature. Cut-slope stability is good in most places, except where jointing is parallel to cut and dip is steep. Foundation stability is good.	

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			(Generander)	
Period	Formation	Thickness of Beds	Physical Characteristics	Engineering Characteristics
Upper Silurian to Lower Devonian	Reyser and Tono- loway Formations, undivided (DSkt)	680.	Keyser Formation - Medium gray to bluish-gray lime- stone that is argillaceous and dolomitic in the upper part, coarse-grained and fossiliferous in the middle part, and nodular and argillaceous in the lower part.	Excavation is difficult with bedrock pinhacles being a special problem. Cut-slope stability is good, expect where rock is intensely fractured. Foundation stability is good, but a thorough investigation for solution openings should be undertaken.
			Tonoloway Formation - Medium to dark-gray lam- inated limestone; inter- beds of calcareous shale and shaly siltstone occur in the lower part.	Excavation is difficult, with bedrock pinnacles being a special problem. Cut-slope stability is good, founda- tion stability is good, but a thorough investigation for solution openings should be undertaken.
Silurian	Wills Creek Pormation (Swc)	650•	Interbedded calcareous shale, argillaceous dolo- mite and limestone, calcareous siltstone, and some very-fine-grained sandstone.	Excavation is moderately easy in nature. Cut-slops stability is fair, due to disintegration when exposed to moisture. Foundation stability is good, but bedrock should be excavated to sound material.
	Bloomsburg and Hifflintown Formations (Sbm) undivided	800+	Bloomsburg Formation - Grayish-red silty clay- stone and siltstone that is in part calcareous.	Excavation is moderately easy in nature. Cut-slope stability is poor to fair, due to disintegration when exposed to moisture. Founda- tion stability is good.
· · · · · · · · · · · · · · · · · · ·			Mifflintown Formation - Interbedded gray lime- stons and calcareous shale.	Excavation is difficult in the unweathered part and moderately difficult to moderately easy in the weathered part. Cut-slope stability is fair. Foundation stability is good, but bedrock should be investi- gated for collapse possibilities where limestone is encountered.
	Clinton Group (SC)	830.	Includes the Reefer and Rose Hill Formations. Reefer Formation - Light- gray, fine-to medium- grained, quartzitic sand-	Excavation is moderately difficult in nature. Cut-slope stability is good, but some rockfall is to be expected from steep cuts. Foundation stabil- ity is good after removal of weathered mantel.
			Rose Hill Formation - Interbedded shale, lime- stone, and very fine- grained, grayish-red hematitic sandstone; and gray fissile shale.	Excavation is difficult in the sand- stone beds and intermediate to moderately difficult in the rest. Cut-slope stability is good to fair and steep cuts can be maintained. Foundation stability is good, but weathered rock should be excavated to sound rock.
	Tuscerora Formation (St)	1,500	Interbedded light-gray quartzitic sandstone and some greenish-gray shale.	Excavation is difficult, with boulder fields in lower slopes being a major problem. Cut-slope stability is good, but should be excavated to sound bedrock.

TABLE 5-D COLUMBIA COUNTY GEOLOGIC FORMATIONS AND PHYSICAL CHARACTERISTICS (continued)

Sources

Groundwater Resources of the Upper Susquehanna River Basin, Pennsylvania. Larry Taylor, 1984.

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Engineering Characteristics of the Rocks of Pennsylvania. Alan Geyer and J. Peter Wilshusen, 1982.

<u>Subsurface Hazards</u>

An increase in urban and suburban sprawl onto unstable land has focused peoples attention on possible subsurface hazards and particularly on the foundation stability of rocks. However, even today, the average property owner or developer is taken completely by surprise when trouble appears.

Within Columbia County, prominent subsurface hazards which may cause subsidence problems include deep mined areas and areas underlain by mine fires. Areas containing these hazards have been delineated on Map 5-8. However, it should be noted that this map is in no way inclusive of all subsurface hazards that may exist within the County. These subsurface hazards, as illustrated, are relegated primarily to the southern portion of the County in Conyngham, Roaring Creek, and Beaver Townships, as well as Centralia Borough.

Although not aforementioned as a subsurface hazard, a very limited potential for sinkholes does exist in those areas underlain by geologic formations containing carbonate rocks. However, these formations are typically composed of a 2 to 5% carbonate rock. Those areas of the County underlain by geologic formations containing small percentages of carbonate rocks have been delineated on Map 5-8.

5.6 Water Resources

Water is one of the most essential commodities of mankind, and next to air, our most important resource for survival. An adequate supply of clean water is a necessary prerequisite for any community contemplating industrial, residential, or agricultural expansion.

Water, like soil and plant and animal life, can generally be considered a renewable resource. Rain and snow periodically replenish the natural supply of water on the earth's surface, in the soil, and in underground reservoirs. This recharge of surface and ground water is part of the hydrologic cycle.

5.6.1 <u>Watersheds</u>

Columbia County, located within the Upper Central Susquehanna River Drainage Basin, is comprised of thirteen (13) designated watershed areas. These watersheds and the total acreage contained within each watershed have been included in Table 5-E.



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TABLE 5-E

COLUMBIA COUNTY WATERSHEDS

	WATERSHED	AREA (ACRES)
1.	Fishing Creek	93,709.27
2.	Little Fishing Creek	39,851.70
3.	Huntington Creek	12,792.45
4.	Briar Creek	17,714.57
5.	Catawissa Cresk	44,665.62
6.	Roaring Creek	47,401.93
7.	Susquehanna River	36,270.22
8.	Nescopeck Creek	4,014.74
9.	Shamokin Creek	3,417.43
10.	Mahoning Creek	897.92
11.	Mahonoy Creek	2,590.85
12.	Chilliaguague Creek	8,710.59
13.	Huncy Creek	1,524.31
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Sources, PA Department of Environmental Resources.

It is evident from the above listed watersheds that the Fishing Creek Watershed is by far the largest providing drainage to Columbia County. The Fishing Creek Watershed drains approximately 25% of Columbia County's total land area. The County designated watersheds have been delineated on Map 5-9.

Historically, stormwater management has been subject to regulation by local municipalities without regard to uniform application of procedures throughout a given watershed area. However, with the passage of the Pennsylvania Stormwater Management Act (Act 167) by the Pennsylvania General Assembly in 1978, a planning framework was established to provide a coordinated watershedwide stormwater management approach. The emphasis on watershed-wide planning, as opposed to the highly fragmented local level regulation, is the cornerstone of Act 167, and was mandated on the principle that stormwater runoff conforms only to watershed boundaries and must be managed accordingly.

More specifically, the primary goal of Act 167 is to prevent future problems resulting from uncontrolled stormwater runoff, including flooding, erosion and sedimentation, landslides and pollution and debris often carried by stormwater runoff. A secondary intent of Act 167 is the elimination or correction of existing stormwater and flooding problems.



The Pennsylvania Department of Environmental Resources (PaDER) was designated as the agency responsible for implementation of Act 167 requirements and individual Pennsylvania Counties as the entity responsible for the completion of watershed stormwater management plans. The PaDER makes available grant monies to fund up to 75% of the total cost of completing a stormwater management plan.

Currently, the only watershed being studied with respect to completion of an Act 167 Stormwater Management Plan, is the small portion of Mahoning Creek located within Columbia County. This plan is currently being developed by the Montour County Conservation District in coordination with a private consultant.

Of the thirteen (13) watersheds providing drainage to Columbia County, both the Fishing Creek and Susquehanna River Watersheds should be considered high priority when determining candidates for development of Stormwater Management Plans. This conclusion is based upon the fact that both watersheds contain scenic river candidates; both watersheds contain the greatest concentrations of population and development relative to other watersheds in the County; and both are among the top five (5) watersheds in the County in terms of area drained.

Surface Water Resources

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The major surface water bodies, as determined by the United States Geological Survey (U.S.G.S.) located within Columbia County include: Fishing Creek (East and West Branch), Little Fishing Creek, Huntington Creek, Briar Creek, Catawissa Creek, Roaring Creek, Susquehanna River, Shamokin Creek, Briar Creek Park Lake, Valley View Lake, Lake Florence, Lake Glory, and the Shamokin Reservoir. These surface water bodies have been delineated on Map 5-10.



Of the surface water resources identified above, three (3) have been classified by the Pennsylvania Department of Environmental Resources in 1975 as candidates for designation as a Pennsylvania Scenic River under Pennsylvania Act No. 283 of 1972 which authorized the establishment of the Pennsylvania Scenic Rivers System. The Scenic Rivers Act established four (4) classifications into which candidate streams could be assigned. These classifications include:

- <u>Wild River Areas (W)</u> Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
 - <u>Scenic River Areas (S)</u> Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and undeveloped, but accessible in places by roads.
 - <u>Recreational Rivers (R)</u> Those rivers or sections of rivers that are readily accessible, that may have some development along their shorelines and may have undergone some impoundment or diversion in the past.

<u>Modified Recreational Rivers (M)</u> - Those rivers or sections of rivers in which the flow may be regulated by control devices located upstream. Low dams are permitted in the reach so long as they do not increase the river beyond bank-full width. These reaches are used for human activities which do not substantially interfere with public use of the streams or the enjoyment of their surroundings.

The designated candidate streams are further categorized according to relative priority as assigned by the Wild and Scenic Rivers Task Force. These priority assignments were based on the streams recognition as having national, statewide, or a primarily local significance. Under the first priority, or those with statewide and in some cases even national significance, the streams were subdivided into three (3) subgroups (A, B and C). First priority group "A" streams are those which have the most immediate need for protection and urgent need for additional study.

Columbia County stream segments classified as Pennsylvania Scenic Rivers Candidates have been inventoried in Table 5-F. This table provides the entire classified stream segment limit, its approximate length, and its proposed class. In addition, these stream segments have been delineated on Map 5-11.

TABLE 5-F

COLUMBIA COUNTY PENNSYLVANIA SCENIC RIVERS CANDIDATES

STREAM NAME	PRIORITY GROUP	PROPOSED SEGMENT LIMITS	Segment Length (MILES)	PROPOSED CLASS
1. Susquehanna River	18	Lackawanna River - Sunbury	52 .	S,R
2. Pishing Creek	2	Headwaters - Susquehanna River	30	R
3. Roaring Creek	3	Headwaters - Susquehanna River	18	R

Source: Pennsylvania Scenic Rivers Inventory.

Upon review of the most recent addendum to the Pennsylvania Scenic Rivers Inventory (April, 1987), it was determined that the status of the stream segments enumerated above remains unchanged.

Degraded surface water reaches have been determined by DER and the Pennsylvania Fish Commission. DER aquatic biologists consider a stream seriously degraded if it does not possess a diverse population of invertebrates and if the majority of invertebrates found were pollution tolerant species. Other indications of poor stream quality include low pH and dissolved oxygen values, high iron values, and the presence of acidity. Fish Commission personnel based their evaluation of degradation on the presence of a low population of game fish in the presence of industrial, municipal, and acid mine drainage discharges.

Stream segments located within Columbia County considered degraded by the DER and the Pennsylvania Fish Commission include the entire lengths of the Susquehanna River and the Catawissa Creek traversing the County. These degraded stream segments have been delineated on Map 5-12.

The Susquehanna River suffers from several water quality problems. These problems include excessive sedimentation, acid mine drainage, domestic waste discharge and industrial waste discharge.

The Catawissa Creek has also been identified as suffering from several water quality problems. These problems include an excessive numerical acidity value ranging around 104 mg/l and a low pH value ranging from 3.6 to 4.0. In addition, limited aquatic communities dominated by acid tolerant macroinvertebrates were observed in the stream.





5.6.3 Groundwater Resources

"Phreatic Water" is defined as water that enters freely into wells under confined and unconfined conditions. In this Plan, we will continue to use the term "groundwater" because generally it does refer to phreatic water. Groundwater then, is underground water that can be removed by wells. All other water in the ground is termed "subsurface water" and is not available for man's use directly.

Groundwater plays a vital part in the natural processes of the hydrologic cycle. Groundwater is an intermediate step in the hydrologic cycle, which is the continuous circulation of water from the ocean to the atmosphere, over the land and back to the ocean over and beneath the land surface. Only a fraction of the total precipitation received each year by Columbia County enters the ground and percolates through the rocks and soil. The subsurface acts to detain the water and creates a reservoir which, during rainless periods, is responsible for supplying surface streams and springs with a more dependable source of water.

The availability and quantities of groundwater in a specific area are dependent upon the properties of the subsurface rocks. In general, sandstone and carbonate rocks provide higher yielding aquifers, whereas shales do not. The geologic formations underlying Columbia County, their well yields and the guality of water from the yields as shown in Table 5-C

Currently, Pennsylvania does not regulate individual water well yields. However, many hydrogeologists generally agree that geological formations capable of yielding at least five (5) gallons/minute are considered adequate for domestic supplies and geological formations that can produce at least twenty (20) gallons/minute are considered adequate for non-domestic purposes not involving consumptive use processes. Upon review of the median domestic and non-domestic well yields for the geologic formations underlying Columbia County, it can be generally concluded that the entire area of the County would be able to adequately supply water to individual domestic as well as non-domestic uses.

There are numerous site-specific locations which may be unable to support adequate groundwater supplies for individual users. For example, Montour Township has received several such complaints from those in the Grovania Road area. land development approval to determine if the proposed site will be capable of supplying adequate quantities of water for the intended use. In addition, these water supply studies should evaluate the potential feasibility of utilizing any existing community water supply system located within a reasonable distance of the proposed site.

According to the Groundwater Resources Report of the Upper Susquehanna River Basin, the most commonly reported groundwater quality problems in the County are, in decreasing order of prevalence: excessive from and manganese, hydrogen sulfine, hardness, backerial organisms from sewage, acid mime drainage (Amd), excessive mitrates, petroleum products from underground storage tanks (USTs), and landtill leachate. Most of these are local in extent and are often confined to individual wells or to a small area. A large number of man-induced problems could be eliminated by the use of deeper casing and by insuring that the annular opening around the exterior of the casing is tightly sealed with cement grout.

TABLE 5-G COLUMBIA COUNTY WATER YIELD CHARACTERISTICS AND QUALITY OF WATER

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Formation	Well Yields	Quality of Water				
Allegheny and Pottsville Groups, undivided (PaP)	N/A - Well yields are probably low to moderate.	Water is probably moderately hard; high levels of iron and manganese should be a common problem.				
Pottsville Group (Pp)	Median for domestic wells yield is from 25 gal/min and a median yield for non- domestic wells is 48 gal/min.	Water is soft and low in dis- solved solids; high concentra- tions of iron and manganese are a frequent problem.				
Mauch Chunk Formation (Mmc)	Median domestic well yield of 25 gal/min. and a median yield for non-domestic wells of 50 gal/min.	Water is moderately soft and contains a moderate amount of dissolved solids.				
Pocono Formation (Mp)	Median domestic well yield of 12 gal/min and a median non- domestic well yield of 18 gal/min.	Water is soft and low in dissolved solids; may in places be corrosive to plumbing.				
Catskill Formation (Dck)	Hedian domestic well yield of 12 gal/min and a median non- domestic well yield of 35 gal/min.	Water is moderately hard and contains a moderate amount of dissolved solids; approxi- mately 30% of the wells pro- duce water high in iron and manganese.				
Trimmers Rock Formation (Dtr)	Median domestic well yield of 10 gal/min and a median non- domestic well yield of 39 gal/min.	Water is moderately hard and contains a moderate amount of dissolved solids; high iron and manganese are a common problem.				
Hamilton and Onodaga (Dho) Formations, undivided	Median domestic well yields of 10 gal/min and a median non- domestic well yield of 93 gal/min.	Water is very hard and rela- tively high in dissolved solids, high iron and maganese is common; excessive hydrogen sulfide is an occasional problem.				
Old Port Formation (Dop)	Median domestic well yield of 10 gal/min and a median non- domestic well yield of 122 gal/min.	Water is very hard and high in dissolved solids; high iron is a frequent problem.				
Keyser and Tonoloway (DSkt) Formations, undivided	Median domestic water yield of 14 gal/min and a median non- domestic water yield of 80 gal/min.	Water is hard and relatively high in dissolved solids; about 58% of the wells produce water high in iron or manganess; high sulfates are reported to be a problem in some localities.				
Wills Creek, Bloomsburg, Mifflintown, and Clinton Formations, undivided (Swbmc)	Median domestic well yield of 9 gal/min and a median yield for non-domestic wells of 75 gal/min.	Water is hard and relatively high in dissolved solids; about half of the wells pro- duce water high in iron or manganese.				
Tuscarora Sandstone Formation (5t)	N/A - Should provide 'small supplies.	Water is probably soft and low and low in dissolved solids.				
Source: Groundwater Resources of the Upper Susquehanna River Basin.						

Groundwater Resources of the Upper Susquehanna River Basin, Pennsylvania. Larry Taylor, 1984.

5.7 Floodplains

Currently, every municipality in Columbia County participates in the National Flood Insurance Program (NFIP) authorized by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Participation in the NFIP requires that a municipality adopt minimum floodplain management requirements as set forth in the Code of Federal Regulations in 44 CFR, Section 60.3. These minimum requirements are typically enacted through a municipal zoning ordinance or a free standing municipal floodplain management ordinance.

The above referenced minimum floodplain management requirements are geared towards regulating development within the one hundred (100) year floodplain. This floodplain is an area, that on average, is likely to flood once every one-hundred (100) years or that has a one (1) percent chance of occurring each year, although the flood may occur in any year.

One hundred (100) year floodplains located within Columbia County have been delineated on Map 5-13. The floodplains delineated on Map 5-13 have been extrapolated from municipal flood insurance rate maps as published by the Federal Emergency Management Agency.

5.8 <u>Wetlands</u>

Several definitions have been formulated at the Federal level to define "wetland" for various laws, regulations and programs. These various definitions include those used by the Environmental Protection Agency (EPA), the Army Corps of Engineers (CE), the Soil Conservation Service (SCS), and the Fish and Wildlife Service (FWS).

The regulatory definition of wetland used by the EPA and the CE for administering the permit requirements of Section 404 of the Clean Water Act emphasizes hydrology, vegetation, and saturated soils. The Section 404 regulations also deal with other "waters of the United States" such as open water areas, mud flats, coral reefs, riffle and pool complexes, vegetated shallows and other aquatic habitats.

The wetland definition used by the SCS for identifying wetlands on agricultural land is for assessing farmer eligibility for U.S. Department of Agriculture program benefits under the "Swampbuster" provision of the Food Security Act of 1985. This definition emphasizes hydrology, hydrophtic vegetation, and hydric soils.



The FWS, in cooperation with other Federal agencies, State agencies and private organizations and individuals, developed a wetland definition for conducting an inventory of the Nation's wetlands. This definition includes both vegetated, and nonvegetated wetlands, recognizing that some types of wetlands lack vegetation (e.g., mud flats, sand flats, rocky shores, gravel beaches and sand bars). This classification also defines "deep-water habitats" as "permanently flooded lands lying below the deepwater boundary of wetlands." Deepwater habitats include estaurine and marine aquatic beds.

The CE, EPA, and SCS wetland definitions include only areas that are vegetated under normal circumstances, whereas the FWS definition encompasses both vegetated and nonvegetated areas.

Except for the FWS inclusion of nonvegetated areas as wetlands, all of the above referenced wetland definitions are conceptually the same; they all include three (3) basic elements - hydrology, vegetation, and soils - for identifying wetlands.

For purposes of this Plan, wetlands have been identified using the FWS definition. This definition is as follows:

"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one (1) or more of the following three (3) attributes: (1) at least periodically, the land supports predominantely hydrophytes, (2) the substrate is predominantly undrained hydric soil, (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year."

This definition was chosen since it is the most comprehensive of the Federal definitions and the land areas fitting this definition have already been mapped on U.S.G.S. 7.5 minute quadrangle maps. Wetlands delineated by FWS National Wetland Inventory maps have been illustrated on Map 5-14. However, Map 5-14 has been developed to illustrate the general location of large wetland areas within Columbia County. In addition, it should be noted that for development purposes, site specific wetlands should be delineated through a wetlands investigation completed in accordance with the methodology contained in the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" as published in January 1989 by the FWS, EPA, SCS, and CE.



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5.9 Agricultural Resources

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The Comprehensive Plan is concerned with both farmland and farming. The land resource base must remain available if agriculture is to continue to be a stable activity and employer within the County. However, if agriculture does not continue to be an economically viable activity, it will prove impossible to keep land available for it.

5.9.1 Prime Agricultural Lands

Prime farmland is considered by soil scientists as best suited for producing food, feed, forage, fiber and oilseed crops. These lands should preferably be used for cropland, pasture land, range land, forest land, or other land, but not built-up land or water. Prime Agricultural Lands have the soil qualities, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods.

Prime Agricultural Soils meet the following criteria:

a. The soils have an adequate moisture supply.

- b. The soils have a suitable soil temperature regime. These are soils that, at a depth of 20 inches (50 cm), have a mean annual temperature higher than 32°F (0°C).
- c. The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches (1 meter) or in the root zone if the root zone is less than 40 inches deep. This range of pH is favorable for growing a wide variety of crops without adding large amounts of supplements.
- d. The soils have no water table or a water table that is maintained at a sufficient depth during the cropping season to allow food, feed, fiber, forage and oilseed crops common to the area to be grown.
- e. The soils lack excessive soluble salts that inhibit plant growth.
- f. The soils are not flooded frequently during the growing season (less often than once in two years).
- g. The soils do not have a serious erosion hazard.
- h. The soils have a permeability rate of at least 0.06 inches (0.15 cm) per hour in the upper 20 inches (50 cm).
Less than 10 percent of the surface layer in these soils consists of rock fragments coarser than three inches (7.6 cm). These soils present no particular difficulty in cultivation with large equipment.

Prime agricultural soils, as defined above, located within the County have been inventoried in Table 5-H.

TABLE 5-H

i.

COLUMBIA COUNTY PRIME AGRICULTURAL SOILS

STHBOL	SOIL HAP UNIT NAME	ACRES	PERCENT
ARA	Albrights Gravelly Silt Loam, 0 to 3 percent slopes	265	0.1
AB2	Albrights Gravelly Silt Loam, 3 to 8 percent slopes	3,579	1.2
AeA	Allenwood Silt Loam, 0 to 3 percent slopes	283	0.1
AeB2	Allenwood Silt Loam, 3 to 12 percent slopes	2,617	0.9
Ba	Barbour Pins Sandy Loam	1,109	0.4
Bb .	Barbour Gravelly Loam	1,374	0.5
Bc	Barbour Silt Loam	1,154	0.4
Bd	Basher Fine Sandy Loam	744	0.3
BrA	Braceville Loam, 0 to 3 percent slopes	852	0.3
BrB	Braceville Loam, 3 to 8 percent slopes	292	0.1
C£B2	Camfield Channery Silt Loam, 3 to 8 percent slopes, moderately eroded	2,109	0.7
CgA	Chenango Gravelly Sandy Loam, 0 to 3 percent slopes	3,482	1.2
CgB2	Chenango Gravelly Sandy Loam, 3 to 12 percent slopes, moderately eroded	962	0.3
ChA	Chenango Silt Loam, 0 to 3 percent alopes	1,811	0.6
ChB2	Chenango Silt Loam 3 to 12 percent slopes, moderately eroded	1,083	0.4
LaB2	Lackawanna Channery Loam, 3 to 12 percent slopes, moderately eroded	1,279	0.4
LeB2	Laidig Gravelly Lonm, 3 to 12 percent slopes, moderately eroded	247	0.1
LkA	Leck Kill Channery Silt Loam, 0 to 3 percent slopes,	356	0.1

TABLE 5-H COLUMBIA COUNTY PRIME AGRICULTURAL SOILS (continued)

SYMBOL	SOIL MAP UNIT NAME	ACRES	PERCENT
LkB2	Leck Xill Channery Silt Loam, 3 to 12 percent slopes, moderately eroded	14,115	4.7
LlA	Leck Kill Channery Silt Loam, Deep, 0 to 3 percent slopes	551	0.2
LIB2	Leck Kill Channery Silt Loam, Deep, 3 to 12 percent slopes, moderately eroded	1,249 .	0.4
LsB2	Lordstown Channery Silt Loam, 3 to 12 percent slopes, moderately eroded	3,457	1.1
МЬ	Middlebury Pine Sandy Loam	. 805	0.3
Nd	Middlebury Silt Loam	3,251	• 1.1
Pk a	Perkin Silt Loam, Cobbly Variant, 0 to 3 percent slopes	412	0.1
PkB2	Perkin Silt Loam, Cobbly Variant, 3 to 12 percent slopes, moderately eroded	272	0.1
Ţ	Tioga Fine Sandy Loam	689	0.2
Tg	Tioga Gravelly Loam	57	0.0
Ts .	Tioga Silt Loam	1,601	0.5
Tt	Tioga Silt Loam, High Bottom	· 387	0.1
WaA	Washington Silt Loam, 0 to 3 percent slopes	105	0.0
WaB2	Washington Silt Loam, 3 to 12 percent slopes, moderately eroded	1,319	0.4
Wb A	Watson Silt Loam, 0 to 3 percent slopes	424	0.1
WDB2	Watson Silt Loam 3 to 8 percent slopes, moderately eroded	5,094	1.7
WfB2	Wellsboro Channery Silt Loam 3 to 8 percent slopes moderately eroded	672	0.2
WnA	Wiltshire Silt Lozm, 0 to 3 percent slopes	260	0.1
	TOTAL	58,318	19.4

Source: U.S

e: U.S.D.A., Soil Conservation Service.

Prime agricultural soils encompasses approximately 58,318 acres which represents 19.4% of the County's total land area. These prime agricultural soils have been delineated on Map 5-15.

5.10 Fish and Wildlife Resources

The natural environment of Columbia County provides abundant habitat for a variety of fish and wildlife. These resources have provided a source of recreation and economic revenue in the County for many years.

According to the Pennsylvania Fish and Wildlife Data Base for Columbia County there are a total of 342 species of fish, amphibians, reptiles, birds and mammals which may exist within the County at any one time. This list distinguishes resident, migratory, and accidental species. This list includes 46 species of fish, 21 amphibians, 14 reptiles, 220 birds, and 41 species of mammals. Of these 342 species, seven (7) species are listed as endangered and four (4) are listed as threatened. A listing of threatened and endangered species which may be found in Columbia County are included in Table 5-I.

Presence and duration of stay of each species, whether or not threatened or endangered, depends upon season, habitat type, and individual movements and migration patterns.

TABLE 5-I

COLUMBIA COUNTY THREATENED AND ENDANGERED SPECIES

American Bittern	T
Least Bittern	T
Bald Eagle	E
Peregrine Falcon	E
Yellow-Bellied Flycatcher	T
Osprey	E
Short-Eared Owl	E
Upland Sandpiper	T
Loggerhead Shrike	E
Black Tern	2
Least Shrew	E

T = Threatened E = Endangered

Source: Pennsylvania Pish and Wildlife Commission.



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Currently, the Pennsylvania Fish Commission stocks hatchery trout into sections of 13 different surface water bodies that are partially or completely located in Columbia County. These include: Beaver Run, Briar Creek, Briar Creek West Branch, Briar Creek Reservoir, Fishing Creek, Fishing Creek East Branch, Little Fishing Creek, Mugser Run, Pine Creek, Roaring Creek, Roaring Creek South Branch, Scotch Run and West Creek.

In addition, the Pennsylvania Fish Commission has documented sections of 22 Columbia County streams which naturally reproduce trout. These stream segments have been delineated on Map 5-16 and include Beaver Run, Briar Creek, Briar Creek East Branch, Cole Creek, Elk Run, Fishing Creek, Fishing Creek East Branch, Fishing Creek West Branch, Glen Brook, Green Creek, Lick Run, Little Fishing Creek, Mugser Run, Pine Creek, Raven Creek, Roaring Creek, Roaring Creek South Branch, Scotch Run, Stony Brook, Ten Mile Run, West Branch Run and West Creek.

Finally, there are two (2) warm water fisheries of note in Columbia County, Briar Creek Reservoir and the Susquehanna River North Branch. Fish sought by anglers in Briar Creek Reservoir include largemouth bass, yellow perch, bullheads, bluegill, and black crappie. The Susquehanna River contains an attractive fishery for channel catfish, rock bass, smallmouth bass, walleye, muskie and carp.



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Page 5-46







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5-1 LAND USE MAP







LEGEND

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AGRICULTURE/OPEN SPACE
COMMERCIAL
INDUSTRIAL
PUBLIC/QUASI-PUBLIC
RESIDENTIAL
RECREATIONAL
MINING/QUARRY
WOODLAND
LAKE/POND

SOURCE: COLUMBIA COUNTY OFFICE OF PLANNING AND DEVELOPMENT.

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Page 6-8

Large sand and gravel deposits are located near Lightstreet along Fishing Creek and along the Susquehanna River in the southeast corner of Montour Township. Both areas are presently being quarried.

Other resources in the County include a peat bog in Fishing Creek Township where peat moss is mined and marketed. Lead deposits can be found on the border of South Centre Township and near Slabtown in Locust Township. These lead deposits are generally too small to be worth extracting at this time, however, as the price of lead rises, these sites may be looked to more seriously in the future.

Other mineral deposits found within the County include a band of sand and gravel deposits of glacial origins approximately four (4) miles wide contained within the Susquehanna River floodplain from Bloomsburg to the eastern border of the County. There is also an iron ore deposit about one (1) mile wide that runs parallel to the river in a straight line through the Frosty Valley and the community of Lightstreet.

This deposit ends near the middle of South Centre Township and has been mined extensively in the past. However, this deposit is not actively mined at present. Other mineral resources of lesser importance in the county include a deposit of clay near the foot of Nescopeck Mountain in Mifflin Township and a uranium find in Sugarloaf Township near the County's northern tip.

5.12 Air Quality

The Department of Environmental Resources (DER) has a constitutional obligation to protect the right to clean air for all Pennsylvanians. The goals of Pennsylvania's ambient air monitoring program are to evaluate compliance with the Federal Clean Air Act Amendments of 1990, and its associated air quality standards; provide real time monitoring of air pollution episodes; develop data for trend analysis; develop and implement air quality regulations; and provide information to the public on daily air quality conditions in their area.

Air quality monitoring in Pennsylvania is conducted by three (3) agencies. These agencies include the Pennsylvania Bureau of Air Quality, the Allegheny County Health Department and the Philadelphia Air Management Service.

Within Pennsylvania there are thirteen (13) air basins and three (3) non-air basins in which air quality monitoring occurs. The Pennsylvania Bureau of Air Quality Control conducts air monitoring activities in twelve (12) of the thirteen (13) delineated air basins and all of the non-air basins. Columbia County is located within the Region IV, Non-Air Basin. Data collected by the Bureau of Air Quality Control is divided into two (2) groups: particulate matter and gaseous pollutants. The Bureau of Air Quality Control uses the National Ambient Air Quality Standards (NAAQS), as well as several standards of its own, such as fluorides and sulfates. Particulate matter and gaseous pollutants monitored include: total suspended particulate and PM-10 suspended particulate matter; sulfates; lead; nitrates; benzol (a) pyrene; soiling, sulfur dioxide; ozone; oxides of nitrogen; nitrogen dioxide; and carbon monoxide.

There are currently three (3) air monitoring stations operating within the Region IV, Non-Air Basin. These include two (2) in Williamsport and one (1) in State College.

Upon review of the most recent Pennsylvania Air Quality Report (1991), and upon consultation with the Bureau of Air Quality Control, it was determined that the Region IV, Non-Air Basin is in compliance with all of the air pollutants except ozone. However, in perspective, no air basin or non-air basin within Pennsylvania is in compliance with the NAAQS for ozone.

It should be noted that all PennDOT projects proposed for completion within Columbia County are required to provide proper planning to assure that adequate measures are taken during project construction to comply with all NAAQS regulations. PennDOT has promulgated these planning requirements to assist the Bureau of Air Quality in achieving and maintaining attainment status with respect to the NAAQS. Even locally owned transportation projects in Columbia County which seek to utilize federal funding will be required to meet the Clean Air Act standards and may be required to secure a conformity determination by PennDOT.

5.13 Environmental Constraint Areas

Environmental constraint areas exist within Columbia County which warrant special consideration in planning for future development. These sensitive areas include the following:

- Steep Slopes Exceeding 15% Percent;
- Floodplains;
- Severe and Hazardous Soil Limitations for Sewage Effluent;
- Wetlands;
- Mine Fire Areas; and
- Deep Mined Areas.

Map 5-18 illustrates the above referenced environmental constraint areas and the following narrative provides a physical description of these resources.

A very limited potential for sinkholes does exist in those areas underlain by geologic formations containing carbonate rocks. These formations are typically composed of a 2 to 5% carbonate rock. Due to limited potential, it would be inappropriate to list sinkholes under environment constraint areas. Those areas of the County underlain by geologic formations containing small percentages of carbonate rocks have been delineated on Map 5-8.

5.13.1 Steep Slopes

Slopes equal to or greater than fifteen percent are classified as environmentally sensitive due to the increased potential for erosion, low degree of slope stability and difficult access in poor weather conditions. As can be seen on Map 5-18, the distribution of steep slopes is widely scattered throughout the County. Generally, the greatest concentration of steep slopes is found in the northern and southern extremes of the County. Approximately 99,583 acres of the County is considered as having steep slopes.

5.13.2 <u>Floodplains</u>

Floodplain areas of Columbia County reflect a relatively flat or low land which is subject to partial or complete inundation from an adjoining or nearby stream, or to unusual and rapid accumulation of surface waters from any Floodplains are delineated based upon a flood source. that on the average is likely to occur once every 100years or has a one percent chance of occurring each year. Municipal and county regulations governing land use in floodplains must meet the requirements of the National Flood Insurance Program and the Pennsylvania Flood Plain Management Act. Approximately 25,524 acres of the County falls within the 100-year floodplain. The 100-year floodplains of the Susquehanna River, Catawissa Creek, Roaring Creek, Briar Creek, Scotch Run, Shickshinny Creek, Fishing Creek, Huntington Creek, Little Green Creek, Green Creek, Mud Run, Spruce Run, Chillisquaque Creek, and West Creek have been delineated on Map 5-18.

5.13.3 Severe and Hazardous Soil Limitations for Sewage Effluent

Certain soils in Columbia County are severely limited for potential community development use. Properties in these soils include depth to bedrock, slope, internal drainage, flooding, seasonally high water table, kind of parent material and stoniness. These soils may adversely affect performance of septic systems and other aspects of community development. Either community development should be restricted, or special treatment should be required. The land area affected by severe soil limitations comprise 110,846 acres, and those constrained by hazardous soil limitations encompasses 5,763 acres which equates to a total of 116,609 acres. The general location of each of the above referenced constraints are illustrated on Map 5-18.

5.13.4 <u>Wetlands</u>

Wetlands generally include swamps, marshes, bogs and similar areas. These areas are determined by wetland hydrology, hydric soils and hydrophytic vegetation. Wetlands provide natural flood control, aquifer recharge, surface water flow stabilization, plant and wildlife habitat, aesthetic and water quality improvements. The U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Resources require permits when developing or encroaching on wetland areas. Approximately 1,952 acres are classified by the U.S. Fish and Wildlife Services as wetlands in Columbia County, and they are illustrated on Map 5-18. However, it should be noted that all wetlands that may exist are not delineated on the above referenced map.

5.13.5 Mine Fire Areas

Currently, Columbia County is the only area in Pennsylvania in which subsurface coal deposits are burning. These combustible deposits are locally referred to as mine fire areas and have been recognized at all levels of government as an extreme hazard to human habitation. Areas underlain by mine fires and in close proximity should in no way be developed for human inhabitation due to the implicit safety hazards posed to human life. Areas underlain by mine fire currently encompass 543 acres and are delineated on Map 5-18. However, these areas should be continuously monitored to determine if such areas are expanding.

5.13.6 Deep Mined Areas

As a result of extensive coal mining in the southern portion of the County, very real man-made subsidence problems exist. New or existing surface structures located over old, mined out coal beds could cause structural damage due to subsidence and cause loss of life to the inhabitants of those structures. Therefore, any development on or in close proximity to these areas will require special considerations and planning prior to their approval. Areas that have been previously mined encompass 3,723 acres and have been delineated on Map 5-18.

5.13.7 Composite Environmental Constraints

Approximately 78.6% or 246,563 acres of Columbia County has been classified as being limited for development by one (1) or more of the above referenced environmental constraints. These areas should be considered separately in the development of planning objectives and the implementation program. Policies and Ordinances may be developed to protect these areas from excessive development and development which may detract from the integrity of these valuable resources.

5.14 Summary of Findings and Conclusions

It must be remembered that the location and character of Columbia County's climate, topographic features, soils, geology, water resources, drainage, mineral resources, and environmentally constraining areas all make up the local physical environment. The local physical environment and the constraints which it imposes, greatly influences the type, intensity, and location of development and use of land that may take place.

Columbia County's climate is characterized by a humid and continental type. The County's weather systems usually originate out of the west and the Central Plains area of the United States. Precipitation is fairly evenly distributed throughout the year with slightly more falling in the Spring and Summer. Temperatures within the County rise and fall with consideration to elevation and season of the year.

The County is entirely located within the Appalachian Mountain Section of the Valley and Ridge Physiographic Province. The numerous mountains which dissect the County typifies the source of much of the region's picturesque beauty. Topographically, the County, north and south, extends from the rugged escarpments of North Mountain to a group of parallel mountain ridges at the extreme south which include Little Mountain, Big Mountain and Locust Mountain.

Columbia County encompasses twelve (12) different soil associations. These coil associations range from very well drained to poorly drained. These soil associations also pose various limitations to development, including limitations for disposal of sewage effluent; limitations for foundations of dwellings of three (3) stories or less; and limitations for construction of streets and parking lots. Soils that exhibit moderate or severe limitations to the above categories are dominant and widely dispersed throughout the County.

Columbia County is underlain by thirteen (13) different sedimentary rock groups formed during the Silurian and Quaternary geologic periods. In geologic terms, the rock groups can be considered relatively young in age. Subsurface constraints to development which are prominent in Columbia County include subsidence hazards caused by mine fires and mined areas. These constraints are primarily found in the southern portion of the County.

Generally, all thirteen (13) geological formations would be able to supply adequate quantities of groundwater for both individual domestic and non-consumptive non-domestic uses. However, the above conclusion cannot be drawn for large scale, high density domestic uses or non-domestic uses which require large quantities of water for operation. These types of developments potentially should complete a water supply feasibility study prior to subdivision or land development approval to determine if the site is capable of supplying adequate quantities of water for the intended use. In addition, these water supply studies should evaluate the feasibility of utilizing existing community water supply systems located within a reasonable distance.

Commonly reported groundwater quality problems in the County include: excessive iron and manganese, hydrogen sulfide, hardness, bacterial organisms from sewage, acid mine drainage, excessive nitrates, and petroleum products from underground storage tanks.

The County is located within the Upper Central Susquehanna River Basin, and is comprised of thirteen (13) designated watershed areas. The largest of which is the Fishing Creek Watershed which drains approximately 25% of the County's total land area.

Currently, the only watershed planning being completed within Columbia County is for the small portion of Mahoning Creek located within the County. This watershed study is being completed by the Montour County Conservation District. However, it has been concluded that both the Fishing Creek and Susquehanna River Watersheds be considered high priority candidates for completion of a watershed-wide stormwater management plan in compliance with Act 167 of 1978. This conclusion is based upon the fact that both watersheds contain scenic river candidates, both contain the greatest concentrations of population and development within the County, and both are among the top five (5) watersheds in the County in terms of land area drained.

The major surface water bodies located within Columbia County include: Fishing Creek (East and West Branches), Little Fishing Creek, Huntington Creek, Briar Creek, Catawissa Creek, Roaring Creek, Susquehanna River, Nescopeck Creek, Shamokin Creek, Mahoning Creek, Mahonoy Creek, Chillisquaque Creek, and Muncy Creek. Of these surface water bodies, the Susquehanna River and portions of Fishing Creek and Roaring Creek have been designated as Pennsylvania Scenic River Candidates.

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Degraded surface water reaches within Columbia County, as identified by the Pennsylvania Department of Environmental Resources and the Pennsylvania Fish Commission, include the Susquehanna River and the Catawissa Creek. The Susquehanna River has been degraded by excessive sedimentation, acid mine drainage, domestic waste discharge and industrial waste discharge. The Catawissa Creek has been degraded by acid mine drainage.

Floodplain areas of Columbia County reflect a relatively flat or low land which is subject to partial or complete inundation from an adjoining or nearby stream, or to unusual and rapid accumulation of surface waters from any source. Floodplains are delineated based upon a flood that on the average is likely to occur once every 100-years or has a one percent chance of occurring each year. Approximately 25,524 acres of the County falls within the 100-year floodplain. One hundred (100) year floodplains located in Columbia County include those of the Susquehanna River, Catawissa Creek, Roaring Creek, Briar Creek, Scotch Run, Shickshinny Creek, Fishing Creek, Huntington Creek, Little Green Creek, Green Creek, Mud Run, Spruce Run, Chillisquaque Creek, and West Creek.

Development within identified floodplain areas is regulated by local municipalities. Currently, every municipality within the County participates in the National Flood Insurance Program and has enacted a floodplain management ordinance as required by this program.

Wetlands generally include swamps, marshes, bogs and similar areas. These areas are determined by wetland hydrology, hydric soils and hydrophytic vegetation. Wetlands provide natural flood control, aquifer recharge, surface water flow stabilization, plant and wildlife habitat, aesthetic and water quality improvements. The U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Resources require permits when developing or encroaching on wetland areas. Approximately 1,952 acres are classified by the U.S. Fish and Wildlife Services as wetlands in Columbia County. However, additional wetland areas not identified by the Fish and Wildlife Service may exist within Columbia County. Therefore, the extent and boundaries of all site-specific wetland areas should be delineated through a wetlands investigation completed in accordance with the methodology contained in the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" as published in January of 1989.

Approximately 58,318 acres of land within Columbia County is considered to be overlain by prime agricultural soils. In addition, certain areas have been designated as Agricultural Security Areas. These areas are voluntarily participating in the Agricultural Security Area Program and are eligible to participate in the Purchase of Agricultural Conservation Easements Program, which is one (1) method of preserving prime agricultural lands from development.

According to the Pennsylvania Fish and Wildlife Database, Columbia County is home to over 342 different species of fish, amphibians, reptiles, birds and mammals. Of these 342 species, seven (7) species are listed as endangered and four (4) species are listed as threatened. Endangered species include: Bald Eagle, Peregrine Falcon, Osprey, Short-Eared Owl, Loggerhead Shrike, Black Tern and Least Shew. Threatened species include: American Bittern, Least Bittern, Yellow-Bellied Flycatcher, and Upland Sandpiper.

Various mineral resources are dispersed throughout Columbia County. Mineral deposits that underlie the County, and which may or may not be currently mined, include anthracite coal, limestone, building stone, sand, gravel, lead and iron ore.

In terms of air quality, Columbia County is part of the Pennsylvania Bureau of Air Quality Control's Region IV, Non-Air Basin. Currently this Non-Air Basin is in compliance with all of the National Ambient Air Quality Standards except ozone.

Approximately 78.6% or 246,563 acres of Columbia County has been classified as being limited for development by one (1) or more environmental constraints. These areas should be considered separately in the development of planning objectives and the implementation program. Policies and Ordinances may be developed to protect these areas from excessive development and development which may detract from the integrity of these valuable resources.

6. LAND USE ANALYSIS

CHAPTER 6

LAND USE ANALYSIS

6.1 <u>Introduction</u>

Population growth and greater mobility afforded by modern transportation services have resulted in more intensive development patterns and land use demands. Each type of land use is characterized by a specific public demand which cannot be met through normal market processes. Some public action is normally required to deal with the current status of existing land use and regulatory guidance for future land use. Therefore, an in-depth inventory and analysis of existing land use is necessary.

This existing land use analysis provides a description of current land usage within the County. It provides an assessment of land use patterns from which a basis for compatibility and extent of usage can be inferred. In addition, this analysis serves as a guide in determining opportunities for future land use planning.

A land use classification scheme has been developed so that an inventory of land uses currently existing within the County may be completed. Each land use classification has been defined and a tabulation of the total land area in each classification has been included in Section 6.2.

Comparison of the above referenced land use classification scheme to previous land use assessments are difficult. This situation results from utilizing data on existing land use contained in the report, "LAND USE UPDATE, 1976," completed by the Columbia County Planning Commission which utilized a different land use classification scheme. Therefore, an actual determination of the percentage changes between prior and present existing land uses is very difficult due to the inherent methodological discrepancies which are noted as follows:

<u>Urban</u>: The generalized description of this land use category in the 1976 report included high density residential, commercial, industrial and institutional uses located in seven (7) of the more urban areas of the County and were all aggregated into this one (1) category. Subsequently, these 1976 urban areas have been delineated into their individual uses and land areas tabulated for each in 1993.

<u>Recreation</u>: The generalized description of intensive recreation, contained in the 1976 report, encompassed State Game Lands. Although Game Lands are delineated on Map 6-1 herein, this report assigns the acreage into woodlands thus resulting in substantial acreage adjustments.

In addition, this report defines a single use recreation whereby the prior existing report (1976) further subdivides the category into intensive and extensive uses.

<u>Water Bodies</u>: Assessment of acreage for this feature was incorporated in the 1970 study; subsequently, the classification scheme utilized in the 1993 study does not delineate water bodies as a land use category. Therefore, the acreage is incorporated into the open space classification.

642 Example ind Use

A generalized ten (10) land use classification scheme has been used in this report. The land use category encompassing the largest land area within the County is woodlands which constitutes approximately one-half of the total County area. The second largest land use category is agriculture/ open space which constitutes a majority of the remaining area. Cumulatively, woodlands and agriculture/open space total approximately 93% of the total County acreage and is illustrative of the rural character of the County. Residential land use is the third largest category with the remaining classifications (in percent order) consisting of transportation, mining, public/quasi public, commercial, recreation and industrial. Map 6-1 indicates the spatial outlay of these land uses, and Table 6-A shows the land use category breakdown by total land area and percentage of the total land area within the County. In addition, the following subsections provide a definition of each land use category.

6.7.1. Agriculture/Coent Space

This classification indicates land uses predominantly related to farming practices and includes agricultural security areas, conservation easements, and water body areas.

Presently, 126,239.66 acres are encompassed in this classification. This figure constitutes 40.35% or 197.25 square miles of the total County land area.

2 2 Wood and

The woodland classification indicates land used predominantly for forests, and other vegetative cover lands, which include state game lands, state forest lands, and privately owned forest lands.

There are 164,462.81 acres within this category. This figure constitutes 52.37% or 256.98 square miles of the total County land area.

5.2.3. Residential

This classification indicates land used predominantly for the housing of people and includes single and multifamily dwellings, as well as duplexes, apartments and townhouses.

Currently, 12,417.19 acres comprise the total land area within this category. This figure constitutes 4.0% or 19.40 square miles of the total County land area.

4. Mining/Quarry

This classification indicates land used predominantly for the extraction of natural resources and includes extraction and/or quarrying of non-metallics, minerals, and stone products.

At this time, an estimate of 2,104.88 acres comprise this usage which equals 0.66% or 3.29 square miles of the total County land area.

5.2.5 Public/Quasi Public

This land use type is predominantly inclusive of governmental buildings and their associated grounds, or related activities. This classification also includes schools, churches, or other similar structures and properties.

Therefore, 1,135.16 acres are encompassed in this classification which equals 0.31% or 1.77 square miles of the total County land area.

2;6 Commercial

This grouping of land uses predominantly encompasses business operations which include retail, wholesale, and service businesses and professional offices.

It is estimated that 965.16 acres fall within the Commercial classification. This figure constitutes 0.30% or 1.51 square miles of the total County land area.

6.2.7 Recreation

This land use category is predominantly inclusive of all activities, related to recreation and includes Federal, State and Local Parks as well as privately owned facilities (i.e. camps and parks).

The recreation classification also includes large land uses such as the Bloomsburg Fairgrounds. Small recreational areas may not appear on Map 6-1 due to the scale of the map. To date, 735 acres comprise the total land area utilized for these activities. This figure represents 0.23% or 1.15 square miles of the total County land area.

6.2.8 **Graduest**

This assignment of land uses predominantly incorporates both manufacturing and non-manufacturing activities. Manufacturing activities include food and related products, textile and apparel products, wood and lumber products, furniture products, paper and related products, machinery, metal and electronic products, transportation. equipment products, and other primary and secondary related activities. Non-manufacturing uses include general, heavy-duty and special trade contractors, trucking, warehousing, and communication operations.

Presently, 596.57 acres are categorized as industrial uses. This figure constitutes 0.31% or 0.93 square miles of the total County land area.

6.2.9

This land use category predominantly includes streets, roads, highways, parking facilities, pedestrian walks, bicycle paths, bus terminals, airports, railroads, and other transportation facilities and rights-of-way.

Currently, 4,246.81 acres constitute this usage which is representative of 1.37% or 6.63 square miles of the total County land area.

6.2.10

This land use categorization predominantly includes land used exclusively for or developed with the following facilities: water supply, sanitary sewer, solid waste management, storm drainage, flood control, electric power, telecommunications, and other related systems and rights-of-way.

Currently, 660 acres are reserved for or developed for public utility uses. This figure constitutes 0.21% or 1.03 square miles of the total County land area.

Motals Accesses 6.2.11

Area calculations for Columbia County indicate a total of 313,563.60 acres which is equal to 29 94 square miles. In comparison a figure of 312,320.00 acres was tabulated as the total County land area in the 1976 Comprehensive Land Use Update Report completed by the Columbia County Planning Commission. Thus a discrepancy of 1,243.6 acres exist between this plan and the 1976 Report despite using the same base mapping. Therefore, it is concluded that the above referenced discrepancy exists due to the different means used in calculating the total County land area.

The 1976 total County land area was tabulated manually using a planimeter, whereas the total County land area calculations for this report was derived using a mathematical function applied to the electronically formatted mapping data via a computerized model.

In addition, it should be noted that comparison of the existing land use analysis of this plan and that of the 1976 plan were not possible due to discrepancies in land use category definitions and the means which were used in calculating the land area of each land use category.

Land Use	ACTES	Percent of County	Square Hiles
Residential	12,417.19	4.00	19.40
Commercial	965.16	0.30	1.51
Industrial	596.57	0.20	0.93
Public/Quasi Public	1,135.16	.0.31	1.77
Agriculture/ Open Space	126,239.66	40.35	197.25
Woodland	154,462.81	52.37	256.98
Recreation	735.00	0.23	1.15
Mining/Quarry	2,104.88	0.66	.3.29
Transportation	4,246.81	1 1.37	6.63
Public Utilities	660.00	1 3.21	. 1.03
Total	1 313,563.60	100.0	489.94

TABLE 6-A COLUMBIA COUNTY EXISTING LAND USE, 1993

Source: Nassaux-Hemsley, Incorporated, 1993.

Existing Land Use Patterns

In the analysis of development patterns, the use of planning areas has been incorporated. Utilizing this approach, development implications can be uniquely defined within these areas. Seven (7) areas are defined based primarily upon political boundaries and physical landmarks, and have been delineated on Map 6-2. The planning areas established are: Fishing Creek Valley in the northeastern section of the County; Little Fishing Creek in the northwestern section of the County; North Central containing the municipalities of Bloomsburg, Berwick, and Briar Creek Borough; South Central containing the municipalities of Catawissa and Mifflinville; Beaver Valley to the southeastern portion of the County; and Big Mountain in the southwestern section of the County. A majority of the cultural land use activity exists in the North Central Planning Area of the County. The municipalities affected include Bloomsburg, Berwick, Briar Creek Borough and Scott, South Centra, and Briar Creek Townships (refer to Map 6-1).

In the North Central Planning Area, the predominant land use is residential, followed by commercial and industrial activities. These uses are proximal to the major transportation corridor (U.S. Route 11). Berwick and Bloomsburg are the primary urban centers within this region and reflect the denser more nucleated population centers of the County. Briar Creek, Scott and South Centre Townships are secondary population centers and are indicative of the lateral growth adjacent to the higher capacity transportation routes of this area.

Two (2) smaller semi-independent population centers exist in the northern reaches of the County. Millville, in the Little Fishing Creek Planning Area, is predominantly a concentrated residential community situated at the cross-roads of State Routes 254 and 42. In addition, Benton Borough is primarily a residential cluster community centered at the cross-roads of State Routes 239, and 487 and is situated within the Fishing Creek Valley Planning Area.

Although mining and quarrying activities can be found in limited acreages within the North Central and Little Fishing Creek Planning Areas, a majority of these activities are found to exist in the Big Mountain Planning Area which encompasses Conyngham Township and the Borough of Centralia. This land use pattern in the southern portion of the County is the result of the extraction of coal deposits within this area and its juxtaposition to the mining activities in adjacent counties (i.e., Schuylkill, Luzerne, and Northumberland).

The South Central and Roaring Creek Valley Planning Areas are predominated by Agricultural/Open Space land uses. Existing development within these Planning Areas is mostly of a residential nature with the denser clusters located along and at the intersections of the higher capacity roadways.

The remaining Planning Areas, including Big Mountain, Beaver Valley, Fishing Creek Valley, and Little Fishing Creek Valley are dominated by woodlands and scattered low density residential development. As mentioned previously, the exceptions to this would include Millville in the Little Fishing Creek Planning Planning Area, Benton Borough located in the Fishing Creek Valley Planning Area, and Catawissa Borough in the South Central Area. In addition, there are substantial woodlands in each of the above referenced Planning Areas, a majority of which are currently classified as State Game Lands and owned by the Commonwealth of Pennsylvania. Several general conclusions can be drawn with respect to land development patterns in Columbia County. First, the lands along and adjacent to State Route 11 serves as a high density mixed use development corridor within the County. Outside this mixed use corridor, to both the north and south, the County is dominated by woodlands with large pockets of lowlying agricultural/open space lands and dispersed low-density residential development. However, the three (3) exceptions to these rural outlying areas would be the small developed nodes of Millville, Benton and Catawissa Boroughs.

6.4 <u>Evaluation Constantial Seal Lends</u>

To evaluate land use trends, a review of the existing land use element completed in 1976 and existing land use as determined in 1993 would typically be made. This review would provide us with a trend analysis for land use over the past twenty (20) years. However, due to the inherent discrepancies in land use category definitions between the 1976 land use element and the 1993 land use element, an accurate analysis is not possible. Therefore, attribute data such as subdivision activity, parcels by property assessment, population projections, and employment projections must be utilized in formulating projected future land use needs.

6.4.1 <u>Subdivision Activity</u>

As indicated earlier, the North Central Planning Area has experienced a majority of the land development activity. Paralleling this observation, an assessment of the subdivision activity county-wide, indicates that a significant amount of the subdivision activity over the past seven (7) years has occurred within this Planning Area. Table 6-C provides a county-wide summary of subdivision activity for the period of 1986 to 1992 and Map 6-3 provides a geographical reference of which Planning Areas have experienced the most Subdivision Activity.

The information utilized in this segment of the land use analysis was acquired from the County Office of Planning and Development and spans a seven (7) year period from 1986 to 1992. An analysis of subdivision activity provides an indicator of the intensity and location of land development in response to development interests. In addition, this analysis, like the land use description, can serve as a guide to identifying future subdivision intensities and locales.

· .		T200 -	1332		
Rank		Number of Lots	Total 1 of County	Total Acres	Average Lot Size
1	Hemlock Twp.	405	12.60	1,187.44	2.96
2	Madison Twp.	386	12.01	1,508.80	3.91
3	Orange Twp.	.213	6.62	674.91	3.16
4	Scott Twp.	188	5.85	239.14	1.27
5.	Briar Creek Twp.	. 144	4.48	785.27	5.45
6	Bloomsburg Town	130	4.04	133.45	1.02
7	Mount Pleasant Twp.	128	3.98	645.51	5.04
. 8	Fishing Creek Twp.	121	3.76	1,504.51	12.43
9.	Nontour Twp.	109	3.39	576.76	5.29
10	Fine Twp.	108	3.36	1,361.97	12.61
11	North Centre Twp.	105	3.26	499.00	4.75
12	Hifflin Twp.	102	3.17	480.05	4.71
13	Berwick	99 -	3.08	49.09	0.49
14	Greenwood Twp.	97	3.01	980.91	10.11
15	Locust Twp.	95	2.95	581.71	4.31
16	Sugarloaf Twp.	.95	2.95	585.98	6.16
17	Benton Twp.	. 93	2.89	984.19	10.59
18	Beaver Twp.	77	2.39	786.17	10.14
19	Jackson Twp.	. 68	2.11	819.41	9.84
20	Main Twp.	64	1.99	307.31	4.80
21	Catavissa Twp.	54	1.68	394.86	7.31
22	Cleveland Twp.	51	1.58	362.69	7.11
23 .	Franklin Twp.	. 51	1.58	406.49	5.56
24	South Centre Twp.	47	1.46	292.23	6.21
25	Conyngham Twp.	46	1.43	94.53	2.05
26	Roaring Creek Twp.	35	1.08	188.21	5.67
27	Catavissa	31	0.96	12.73	0.41
28	Hillville	21	0.65	104.68	4.98
29	Stillwater .	20	0.62	161.20	8.06
30	Briar Creek	13	0.40	39,32	3.02
31	Benton	12	0.37	28.72	2.39
32	Orangeville	5	0.15	2.55	0.51
33	Centralia	0.	0.00	0.00	0.00
	COUNTY-WIDE	3,123	-100.00	16,779.79	5.37

TABLE 6-C SUBDIVISION ACTIVITY 1986 - 1992

SOURCE: Columbia County Office of Planning and Development.

Note: Average lot size is computed by using total number of lots and the total land area in acres for all subdivisions involved.

The North Central Planning Area has experienced the largest percentage of subdivision activity over the seven (7) year period (see Map 6-3). Over 50% or 1,581 parcels of the 3,123 parcels created countywide were generated within this Planning Area. The North Central Planning Area encompasses the following municipalities: Hemlock, Orange, Scott, Briar Creek, Mount Pleasant, Montour, North Centre and South Centre Townships, Orangeville and Briar Creek Boroughs, and Berwick and Bloomsburg which serve as the primary urban centers.

MAP 6-3SUBDIVISION ACTIVITY (Total Lots Created) SUGARLOAF 1986 - 1992 JACKSON BENTON PÍNÉ BENTON STILL GREENWOOD HINGCREE MILLYILLE RIÁR MADISON IOUNT ORT BRIAR SOUTH CENTRE sćofi MIFFLI LEGEND MONTOUR MAIN 0 99 CATAWISS BEAVER 100 - 199 AWISS 200 - 299 FRANKLIN ROARING 300 - 399 CREEK \boxtimes >400 LOCUST CLEVELAND PLANNING AREAS CONYNGHAM SOURCE: COLUMBIA COUNTY OFFICE OF PLANNING AND DEVELOPMENT. 8/93 NASSAUX-HEMSLEY, INCORPORATED ENGINEERING/PLANNING CONSULTANTS CHAMBERSBURG PA ΧH *=24090*

A more detailed description of subdivision activity within the North Central Planning Area is as follows:

Hemlock Township generated the most lots, totaling 405 which constitutes 12.60% of all County activity. At a municipal level, the number of lots created affected 10.92% or 1,187.44 of the 10,868.76 acres within the Township.

Orange Township generated 213 lots which constitutes 6.62% of all County activity. Of the 7,889.22 acres within the Township, 674.91 acres were affected which equates to 8.55% of its total land area.

Scott Township generated 188 lots or 5.85% of all County activity. This subdivision activity involved 239.14 acres of the 4,458.33 total acres within the Township which constitutes 5.36% of its total area.

Briar Creek Township generated 144 lots, 4.48% of the County total. Of the 12,971.48 acres within the Township, 785.27 acres were affected which constitutes 6.05% of its total area.

Bloomsburg generated 130 lots which equates to 4.04% of all County activity. Approximately 133 of the 2,998.38 acres within the municipality were affected which equates to 4.45% of the total municipal land area.

Mount Pleasant Township generated 128 lots, 3.98% of the County total. Of the 10,670.34 acres within the Township, 645.51 acres were affected which constitutes 6.05% of the total municipal area.

Montour Township generated 109 lots or 3.39% of the County total. Approximately 576 of the 5,740.85 acres within the Township were affected which equals 10.04% of the total municipal area.

South Centre Township, Briar Creek Borough, Berwick Borough and portions of Catawissa and Main Townships constitute the remaining municipalities within the North Central Planning Area. Cumulatively, 218 new lots were created within these municipalities which constitutes 6.77% of the total County subdivision activity. Two (2) additional areas of interest are indicated in the analysis of subdivision activity. First, Madison Township, within the Little Fishing Creek Planning Area, ranked second in subdivision activity within the County and generated 386 lots representing 12.01% of the County activity. Of the 22,513.75 acres within the Township, 1,508.80 acres were affected which constitutes 6.70% of the total municipal area.

Second, Pine Township, also within the Little Fishing Creek Planning Area, generated 108 lots or 3.36% of the total County subdivision activity. Approximately 1,361 of the 16,555.98 acres within the Township were effected which constitutes 8.23% of the total municipal area. Cumulatively for both Townships, 494 lots were generated which constitutes 15.37% of the total County activity.

Parcels by Property Assessment

6.4.2

Using a generalized description of land use activities as a basis in property assessment, five (5) categories have been defined. These classifications include agricultural, residential, commercial, industrial, and vacant. At a County level, a total of 30,152 parcels exist. Residential use is the largest category with 19,217 parcels or 63.73% of all assessed property. Vacant land is the second largest category with 5,924 parcels or 19.65% of all assessed property. Agriculture follows as the third largest category with 2,952 parcels or 9.79%, assessed property used for commercial and industrial purposes follow at 6.42% and 0.41%, respectively. Table 6-D provides a municipal and county-wide summary of property assessment by land use designation.

At a municipal level, residential is the predominant category in all but one urban center. The percentages range from 72 to 80% for all parcels within the These urban centers include Benton municipalities. Borough, Berwick Borough (the highest value 80.03%), Bloomsburg Town, Briar Creek Borough, Catawissa Borough, The Millville Borough, and Orangeville Borough. exception to this trend is the Borough of Centralia, where residential development comprises 16.52% of the Associated with these nucleated existing land use. centers are adjacent Townships which contain relatively high percentages of residential use. These include South Centre and Scott Townships (See Table 6-D).

The agricultural category has higher percentages within the rural townships that are distanced from the North Central Planning Area development corridor and its appurtenant transportation routes. These areas include Roaring Creek, Jackson, Benton, Cleveland, Fishing Creek, Franklin, Madison, and Pine Townships. The property assessment indicates that the highest concentration of commercial uses are found in Bloomsburg and Briar Creek Borough. This indicates that the municipalities located within the North Central Planning Area and in close proximity to major transportation corridors of the County have experienced the greatest concentration of commercial development. The lowest percentages of commercial development are found in the outlying rural townships of the County where agricultural activity is predominant. The lowest percentage areas include Beaver and Roaring Creek Townships.

Industrial assessment remains the smallest category including only 0.41% of the total County land area. Benton, Berwick, and Millville Boroughs are the municipalities with the most notable industrial areas with 1.50%, 1.16% and 1.39%, respectively, of land area containing industrial operations (see Table 6-D).

The vacant category for parcel assessments has a percentage range extending from a low of 7.5% in Benton Borough to a high at 59.0% in Beaver Township, with one exception being Centralia Borough with 70.9% of its land being vacant due to the Federal buy-out program. Generally, the developed centers, i.e. Benton Borough, Bloomsburg, and Orangeville Borough, are found to have smaller percentages (7 to 10%) of vacant parcels, while the outlying rural Townships contain higher percentages (11 to 59%). The category of vacant land encompasses parcels or tracts of land ranging from approximately one (1) to ten (10) or more acres, with uses associated in agriculture, extinct commercial activity, or vacated lots.

			TABLE 6-D				•	•	
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COLUMBIA COUNTY PARCELS BY PROPERTY ASSESSMENT, 1993

		NUMBER OF PARCELS						PERCENTAGE OF TOTAL.			
MUNICIPALITY	TOTAL	AGRICULTURAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	VACANT	AGRICULTURAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	VACANT
Beaver (T)	30,152	2,952	19,217	1,936	123	. 5,924	9.791	63.701	6.421	0.411	19.651
Beaver (T)	1,053	· 134	. 286	5	0	628	12.731	27.16	0.478	0.001	59.641
Benton (B)	399	i	300.	58 -	6	1 31	1.001	75.191	14.541	1.501	7.77
Benton (T)	709	178	312	26	1 1	192	25.111	. 44.011	- 3,671	0.141	27.081
Berwick (B)	4,586	1	3,670	` 518	53	344	0.021	80.031	11.30	1,161	7.50
Bloomsburg (Town)	3,145	8	2,399	460	13	. 265	0.251	76.28	14.631	0.414	8.431
Briar Creek (B)	309	6	224	. 46	0	33	1.941	72.491	14.89.1	0.001	10.681
Briar Creek (T)	1,751	135	1,145	. 34	6.	431	. 7.711	65.391	1.941	0.341	24.611
Catawissa (B)	688	0	549	. 74	· 7 ·	58 '	0.001	79.80	10.761	1.021	8.431
Catawissa (T)	544	80	317	13 [.]	· ·0	134	14.71	58.271	2.391	0.001	24.631
Contralia (B) 🦟	224	. 0	. 37	30	0	157	0.001	16.521	13.391	0.001	70.091
Cleveland (T)	613	150	287	15	· · · O	161	24.471	46.821	2.451	0.001	26.261
Conyngham (T)	751	· 3	451	42	× 3 ·	_ 25Z	0.401	60.051	.5.591	0.401 .	33.561
Fishing Creek (T)	913	[·] 201	470 ·	11	0		22.021	51.48%	1,201 .	0.001	25.301
Franklin (T)	335	64	167	5	·0 ·	79	25.07	49.85%	1.491	0.001	23.581
Greenwood (T)	957	197	· 514	28	0	218	20.591	53.711	2.931	0.001	22.781
Benlock (T)	807	111 .	472	. 32	2	190	13.75	58.49	3.971	0.251	23.541
Jackson (T)	392	· 138	129	5	1	. 119	35.201	32.91	1.28	0.261	30.361
Locust (T)	814	163	430	23 ·	. 1	· 197	20.02	52.831	2.83	0.121	24.201
Madison (T)	770	216	354 -	21	· · 1	178	28.051	45.971	2.731	0.131	23.121
Hain (T)	545	. 83	345	15		102.	15.231	63.30	2.751	0.001	18.721 .
Hifflin (T)	1, 143	125	743	37	3	235	10.94	65.001	3.24	0 261	20.561
Hillville (B)	361	8	260.	56	5	. 32	2.221	72.021	. 15.511	1.391	8.861
Hontour (T)	766	61	493	61	1	150	7.961	64.361	7.96	0.131	19.58
Ht. Pleasant (T)	584	124	334	12	· · · ·	114	21.231	57.191	2.051	Ó.001	19.521
North Centre (T)	906	107	611	7	o	181	11.011	67.441	0.771	0.001	19.981
Orange (T)	624	87	405	22		110 ·	13.941	64.901	3.531	0.001	17.631
Orangeville (B)	-183		143	18	2	16	2.191	78.141	9.841	1 091	8.741
Pine (T)	685	168	259		0	249	24.531	37.811	1.31	0.001	36.351
Roaring Creek (T)	446	150	122	2	.0	. 172	33.631	27.351	0.451	0 001	38.571
Scott (T)	2,172	22	1,716	152	1 .	281	1.011	79.011	7.001	0.50	12.941
South Centre (T)	1,020	20	791	. 17	15	117	1.961	77.551	7.55	1.47	11.471
Stillwater (B)	135	19	68	. 7	. 1	. 40	14.071	50:371	5.194	0.741	-29.631
Sugarloaf (T)	822	165	414	· 15	1	227	20.071	50.361	1.821	0.121	27.621

Source: Columbia County Office of Planning and Development.

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6.5 <u>Composite Zoning Analysis</u>

In order to facilitate an analysis of the spatial outlay, extent, and compatibility of zoning regulations found within twenty-four (24) of thirty-three (33) municipalities in the County, a composite scheme and map has been generated (See Map 6-3). The composite zoning categories generated from the local ordinances include the following:

- Open Space which includes forest, conservation areas, floodplains, and natural areas;
 - Low Density Residential which includes low density areas and residential conservation;
 - Medium Density Residential which medium density areas, residential suburban, low density residential, suburban areas, and village areas;
 - High Density Residential which includes urban area, high density areas, mobile home parks, and medium density areas;
 - General commercial which includes commercial warehouse areas and central commercial areas;
 - Highway Commercial which includes highway service, interchange commercial, controlled access, commercial, and commercial-highway;
 - Commercial Residential which includes neighborhood commercial, downtown commercial, residential commercial, village commercial, neighborhood retail, and village;
 - Industrial Park which includes light industry, general industry, industrial commercial, resource extraction, and heavy industrial;
 - University which is exclusively focused on the State University in Bloomsburg; and
 - Agricultural/Rural which includes agricultural and rural/residential uses, rural agricultural and agricultural.

As of July, 1994, the following municipalities enacted Zoning Ordinances:
Municipality

Enactment Date

Beaver Township 1. 2. Benton Borough з. Benton Township Berwick Borough 4. 5. Briar Creek Borough Briar Creek Township б. 7. Bloomsburg 8. Catawissa Borough 9. Catawissa Township 10. Cleveland Township Franklin Township 11: 12. Greenwood Township 13. Hemlock Township Locust Township 14. 15. Main Township 16. Mifflin Township 17. Montour Township Mount Pleasant Township 18. 19. North Centre Township 20. Pine Township 21. Roaring Creek Township 22. Scott Township 23. South Centre Township 24. Stillwater Township

April, 1988 March 1, 1971 June 1, 1970 February 1, 1989 April, 1984 November 8, 1993 (Not enforced) October, 1986 September, 1984 December 15, 1987 May 29, 1994 March 27, 1975 February 12, 1989 May 23, 1988 May 9, 1991 . November 1, 1992 January 18, 1973 May 9, 1972 January 1, 1988 September 9, 1974 January 1, 1993 August 14, 1990 -December 1, 1992 May 5, 1988 June 2, 1970

An overview of the County (See Map 6-4) indicates a higher, percentage of variable zoning types within the North Central Planning Area corridor of the County, especially within the urban centers of the Town of Bloomsburg and Berwick and Briar Creek Boroughs. This region reflects the need to accommodate the array of land use demands that accompany active urban/ suburban centers. In addition, proximity to major transpor-tation corridors affects the needs from a broader perspective. The variability of zoning types found in the outlying munici-palities is of a smaller extent, thus indicative of a lessor demand in land use activities and reflects the desire for a rural character.

Currently, there are 83,133.7 acres zoned by municipalities within Columbia County. Of this acreage, the greatest amount is generally zoned as Agricultural/Rural (105,070.2 acres) with open space a close second at with 101,113.6 acres. Other zoning classifications found within the County in descending order by acreage include: low density residential (9,757.5), medium density residential (7,363.1) high density residential (2,384.8), industrial (1,859.5), highway (1,008.5), commercial general commercial (96.4), and commercial/residential (885.8). Therefore, when evaluating those municipalities that do have zoning, it appears that priority is given to protecting both agricultural and open space lands.

The level of generalization used in compiling the composite zoning segment allows for assessment of compatibility of neighboring municipal ordinances. In reviewing this compilation, a need may exist to address buffering between possible incompatibilities. A review of the composite map and associated plates (A-F) indicate the following areas of concern:

Town of Bloomsburg and surrounding municipalities; Stillwater Borough and surrounding municipalities; Briar Creek Borough and surrounding municipalities; Berwick Borough and surrounding municipalities; Benton Borough and surrounding municipalities; and Mifflin Township and surrounding municipalities.

A more detailed evaluation will be necessary to determine the scope of the above referenced problem and potential remediative actions.









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6.6 Agricultural Land Protection Programs

Three (3) important techniques are now being used to protect agricultural lands and practices in Columbia County. These programs include differential assessment, agricultural security areas, and purchase of agricultural conservation easements.

6.6.1 <u>Differential Assessment</u>

The Pennsylvania "Clean and Green Act" (Act 319) was enacted in 1974 for purposes of protecting agricultural lands through the offering of property tax reduction incentives. To be eligible for participation in this program, an individual must have ownership of a parcel of land of ten (10) acres or more completely committed to agricultural use. Under this criteria, Columbia County identified 5,000 parcels of land that would be eligible for participation when the County became active in the Clean and Green Program in 1992. The total number of acres in this program is 144,215.

To become active in the Clean and Green program, an individual must execute a covenant with the County prior to June 1 of any year to receive property tax savings in the following year. Participation in the program is intended to be perpetual. However, a participant may withdraw from the program at any time but may be penalized through the collection of property tax savings granted up to the previous seven (7) years.

Currently, 2,274 parcels of land located throughout the County are involved in the program. Resulting from the program has been a 40% savings in property taxes paid for parcels participating in the program. The total number of tillable parcels of land in 1993 was 29,051.

6.6.2 Agricultural Security Areas

The Agricultural Security Areas law prevents municipalities from enacting ordinances that restrict normal farming practices or structures in Agricultural Security Areas. It also requires state agencies with programs that might negatively affect farmers to conduct their programs in a manner that will encourage the continuance of viable agriculture in the Agricultural Security Areas. It requires the approval of the Agricultural Lands Condemnation Approval Board of the Commonwealth before the Commonwealth or local governments use the power of eminent domain to acquire land in an Area. Finally, the law requires that state or locally funded development projects in an Agricultural Security Area be reviewed by the state Agricultural Preservation Board and the Local Agricultural Advisory Committee. Inclusion of an area is voluntary and does not prevent the landowner from

developing his land. As of May of 1993, Columbia County had established 12 Agricultural Security Areas. They contained 779 parcels and covered 50,789 acres and have been delineated on Map 6-5.

6.6.3 Agricultural Conservation Easements

Columbia County is currently considering participation in the Pennsylvania Purchase of Agricultural Conservation Easements (PACE) program. Easements provide protection of farmland that is essentially permanent. They can be reviewed after 25 years, however, if both the state and the County boards find that the land under easement is no longer viable agricultural land, the development rights can be sold to the current owner. In order to be . eligible for the PACE program, farmland must be located in an Agricultural Security Area. To date, the County has established the appropriate Agricultural Land Preservation Board to administer the PACE program, but has purchased no easements. To date, the County has received five (5) applications for easement purchase and two (2) of these have been purchased.

6.7 <u>Historic Resources</u>

Columbia County is rich in existing historic resources. Over the past two-and-one-half centuries, since its initial European settlement in the 1770's, Columbia County has experienced change as a gradual development and evolution of existing institutions, economic conditions, and way of life. As a consequence, the historical character of the County's land-scape has remained strong.

The predominant historic resource types found throughout the County are nineteenth-century transportation facilities. These facilities would include numerous covered wooden bridges, railroad stations and the Pennsylvania Canal. Other historic resource types found throughout the County include mills, schoolhouses, churches, residences, etc. These other historic resource types tend to be related to the County's rapid economic growth and establishment of its extensive transportation network in the nineteenth century.

Significant historic sites throughout Columbia County were inventoried in the "Columbia County Historic Sites Survey" as prepared by the Columbia County Planning Commission in 1980. This inventory included sites identified as historically significant by the Columbia County Register, the Pennsylvania Register, and the National Register of Historic Places.



6.7.1 The National Register

The primary benefit of listing on the National Register is official recognition of the significance of a historic site. Listing and eligibility for listing protects a site from the effects of any activity involving federal, and often, state funds to the extent that a professional study of the impact must be undertaken. Such studies often lead to modifications to the "activity" that lessen its effects upon significant resources and their contexts.

When significant resources are to be lost by activities involving federal funds, the resources must often be fully documented prior to being lost. Resources which are eligible for listing on the National Register also receive a measure of protection from the Pennsylvania Historical and Museum Commission when state permits, such as permits for wastewater collection/treatment systems and on-lot septic systems, are involved. Listing in and of itself, however, does not automatically protect a historic resource or infringe upon any private rights regarding that resource. Protection may occur only when federal funds or state permits are involved, and even then actual listing on the National Register is secondary because all eligible resources receive such protection.

Currently, Columbia County has twenty-nine listings on the National Register of Historic Places. Of these listings, twenty-five are covered bridges and one (1) is a historic district. A complete listing of historical sites within Columbia County on the National Register is contained in Table 6-E and located on Map 6-6.



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TABLE 6-E

COLUMBIA COUNTY INVENTORY OF NATIONAL REGISTER SITES

NUNICIPALITY	EISTORIC NAME	ADDRESS	DATE
Berwick	Berwick Armory	201 Pine Street	11/14/91
Berwick	Jackson Mansion & Carriage House (Berwick City)	344 Market Street	09/05/85
Bloomeburg	Bloomsburg Eistoric District	BADD by Penn, 5th, West, Willow, Willwills, T449	03/08/83
Bloomsburg/ Montour Twp	Ropert Covered Bridge	7449	11/29/79
Catawissa	Catawisse Friends . Nesting House	5. Side of South Street near corper- of Third Street	06/09/78
Catavissa Tvp	Rollingsheed Covered Bridge	Tins, SE of Catavissa Tup.	11/29/79
Cleveland Typ	Davis Covered Bridge	TIM, S of Cataviesa	11/29/79
Cleveland Top	Furnace Covered Bridge	T373, 5 of Catavison	11/29/79
Cleveland Typ	Johnson Covered Bridge	T320, E of North- umberland County Border	11/29/79
Fishing Creek Twp	Bridge in Fishing Creek Township	L.R. 19078 over Little Pins Creek	06/22/88
Pishing Creek Twp	Zast Paden (Tvin) Covered Bridge	L.R. 1020, Z of Porks	11/29/79
Fishing Creek Twp	Josiah Hess Covered Bridge	Tisl, between Forks and Jonestown	11/29/79
Fishing Creek Twp	West Paden (Twin) Covered Bridge	L.R. 1020, E of Forks	11/29/79
Franklin Typ	Riegel Covered Bridge (destroyed)	T312, N of Rohrbach	11/29/79
Franklin Top	Rohrbach Covered Bridge	1369, SW of Cataviana	11/29/79
Franklin/ Cleveland Tup	Parr's Kill Covered . Bridge	T371, S of Catavissa	11/29/79
Greenwood Twp	Kramer Covered Bridge	T572, SW of Rohraburg	11/29/79
Semlock/Mt. Pleasant T-pe	Wanich Covered Bridge	7493, near Fernville	11/29/79
Locust Typ	Sayder Covered Bridge	TIGI, E of Slabtown	11/29/79
N. Centre Twp	Fowlersville Covered Bridge	L.R. 1015 over W. Branch of Briar Creek	11/29/79
Orange Twp	Patterson Covered Bridge	T575, between Rohrs- burg and Orangeville	11/29/79
Pine Twp	Shoemaker Covered Bridge	L.R. 4027 over Branch Run	11/29/79

TABLE 6-E

	COLUMBIA COUNT	2
INVENTORY	OF NATIONAL REG	ISTER SITES
•	(continued)	

Hunicipality	Eistoric Name	Adress	Date Listed
Pins/Greenwood Twps	Eckman, Sam Covered Bridge	T548, N of Millville and Iola	11/29/79
Pine/Jackson Twps	Creasyvills Covered Bridge	T583, N of Millvilla and Iola	11/29/79
Pine/Jackson Typs	Jud Christian Covered Bridge	T685, N of Millville and Iola	11/29/79
Stillwater	Stillwater Covered Bridge	T629	11/29/79
Sugarloaf Typ	"T": Covered Bridge	T757, near Contral	11/25/79
Sugarlosi Tep	Welle Hess Covered Bridge	L.R. 19074, between Grassmere Park and Laugbach	11/29/79

Sources Pennsylvania Sistorical and Museum Commission.

6.8 Projected Future Land Use Needs

It is essential to determine future land use projections so that adequate quantities of land may be reserved for future residential, commercial, industrial, recreation and public/ quasi public development. These projections have been based upon and derived from trends and future forecasts of population and employment.

6.8.1 Future Residential Development

Based on the population projections for the year 2010 as contained in Section 3.6, the demands for additional housing units can be derived. Furthermore, based on the average lot size, by municipality, one can estimate the total land area needed to accommodate future residential development if existing trends continue. It should be noted that average lot size was determined by calculating the average lot size of all approved subdivisions in each municipality over the past seven (7) years.

Table 6-F illustrates the projected additional land areas required for residential development through the year 2010 utilizing existing trends. This estimated total demand of 2,759 housing units translates into an additional 15,221 acres of land to be reserved for residential purposes throughout the County.

Municipalities anticipated to experience the highest acreage demand are Briar Creek (1,910 acres), Pine (1,233 acres) and North Centre (1,164 acres) and Fishing Creek (1029 acres) Townships. Furthermore, several municipalities, including; Benton, Berwick, Briar Creek, Catawissa, Orangeville, Stillwater and Centralia Boroughs as well as Conyngham, and Roaring Creek Townships will experience the least amount of residential development. TABLE 6-F

COLUMBIA	COUNTY	RESIDEN	TIAL	LAND	USE	PROJ	ECTIONS	USING	HISTORIC
		TREND	EXTR	APOLA	TION	FOR	2010		

Municipality	Anticipated Population Increase 1990-2010	Population Increase Persons Per Ecusehold	Estimated Number of Additional Housing Units	Average Lot Size in Acres	Future Residential Development in Acres
Beaver (T)	175	175/2.86	61.2	10.14	620.56
Benton (B)	(85)	(85)/2.51	(33.9)	2.39	0.0
Benton (T)	166	166/2.68	61.9	10.59	655.52
Berwick (B)	(1,508)	(1508)/2.35	(641.7)	0.49	0.0
Blocmsburg (Town)	1,380	1380/2.35	587.2	1.02	598.94
Briar Creek (B)	(6)	(6)/2.53	(2.3)	3.02	0.0
Briar Creek (T)	929	929/2.65	350.5	5.43	1,910.22
Catawissa (3)	(96)	(96)/2:31	(41.5)	0.41	0.0
Catavissa (T)	368	368/2.75	133.8	7.31	978.08
Centralia (B)	(63)	(63)/2.03	0.0	0.0	0.0
Claveland (T)	103	103/2.72	37.8	7.11	268.76
Conyngham (T)	(143)	(143)/2.60	(55.0)	2.05	0.0
Fishing Creek (T)	. 226	226/2.73	82.8	12.43	1,029,20
Franklin (T)	100	100/2.80	35.7	5.56	198.49
Greenwood (T)	59	59/2.82	20.9	10.11	211.30
Implock (T)	160	160 /2.52	61.0	2.96	180.56
Jackson (T)	63	63/2.55	24.7	9.84	243.04
Locust (T)	172	172/2.58	66.6	4.31	287.04
Xadison (T)	265	265/2.92	90.8	3.91	355.02
Main (T)	195	195/2.90	67.2	4.80	322.56
Rifflin (T)	561	561/2.75	204.0	4.71	960.84
Millville (B)	. 195	195/2.34	83.3	4.98	414.83
Nontour (T)	454	454/2.55	178.0	5.29	941.62
Ht. Pleasant (T)	437	437/2.88	151.7	5.04	764.56
North Centre (T)	677	677/2.76	245.2	4.75	1,164.70
Orange (T)	508	508/2.78	182.7	3.16	. 577.33
Orangeville (B)	36	36/2.67	13.4	0.51	6.83
Pine (T)	267	267/2.73	97.8	12.61	1,233.26
Roaring Greek (T)	(6)	(6)/2.64	{2.2}	6.67 ·	0.0
Scott (T)	1,511	1,511/2.45	616.7	1.27	783.20
South Centre (T)	1 \$7	87/2.51	1 34.6	6.21	214.86
Stillwater (8)	22	22/2.69	8.2	8.06	66.09
Sugarloaf (T)	96	96/2.53	1	6.16	233.46
Total	7,305.	-	2,759	-	15,221
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Source:

Sources

Projections were made by Massuax-Hemsley, Inc., 1993.

Data on persons per household was taken from 1990 U.S. Department of Commerce, Bureau of Cansus.

Table 6-G illustrates the estimated additional land area required for residential development through the year 2010 using each municipalities minimum lot area regulations. These minimum lot area regulations were determined for each municipality by using the average minimum lot size requirements of either the predominant municipal zoning district or the zoning district where residential development is most likely to occur (if that municipality has zoning), or the

minimum lot size average of one (1) acre where centralized sewer is not available or one-half (.5) acre where centralized sewer is available as required by the County's Subdivision Ordinance. This estimated total demand of 2,759 housing units translates into an additional 3,239 acres needed for residential purposes throughout the County.

If existing land use trends continue within the County as illustrated by Table 6-F, an additional 15,221 acres will be needed for residential purposes through the year 2010. However, if future land use is reflective of existing land area regulations, approximately 3,239 acres will be needed for residential purposes through the year 2010.

6.8.2 Future Commercial and Industrial Development

Based on the current average number of employees per acre as derived from Section 4.3, of commercial and industrial land in Columbia County which is 12.8 employees per acre and 4.4 employees per acre respectively, it is projected that there will be a need for a total of 296 acres. This total acreage figure would be necessary to accommodate the projected commercial and industrial needs of the County through the year 2010.

County employment projections as made in Section 4.6, indicate 3,536 additional employees in the commercial sector through the year 2010. When applying the above referenced 12.8 employees per acre to the projected 3,536 additional employees, this figure would correlate to the need for an additional 276 acres of commercial land through the year 2010.

County employment projections indicate approximately 87 new employees will be added to the industrial sector through the year 2010. When applying the above referenced 4.4 employees per acre to the projected 87 additional employees, this figure would correlate into a need for an additional 20 acres of industrial land through the year 2010.

However, a separate Industrial Lands Need Study completed in 1989 by the Columbia County Industrial Development Authority, concluded that an average of 9.7 acres of land annually would be required for industrial uses. Utilizing this figure it appears as though an additional 135.8 acres should be reserved for industrial purposes through the year 2010. This projection would be inclusive of the 120 acres of land that the Columbia County Industrial Development Authority currently has options on for purposes of developing an Industrial Park.

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TABLE 6-G COLUMBIA COUNTY MINIMUM RESIDENTIAL LAND USE PROJECTIONS FOR 2010

· · ·		1 010	2010	· · · · · · · · · · · · · · · · · · ·	
Municipality	Anticipated Population Increase 1990-2010	Population Increase Persons Per Household	Estimated Number of Additional Housing Units	Averaçe Lot Size in Acres	Future Residential Development in Acres
Beaver (T)	175	175/2.86	61.2	. 1.0	61.2
Benton (B)	(85)	(85)/2.51	(33.9)	0.25	0.0
Benton (T)	166	166/2.68	61.9 .	0.5	. 31.0
Berwick (B)	(1,508)	(1508)/2.35	(641.7)	0.15	0.0
Bloomsburg (Town)	1,380	1380/2.35	567.2	0.15	89.1
Briar Creek (B)	(6)	(6)/2.59	(2.3)	1.0	0.0
Briar Creek (T)	929	929/2.65	350.5	1.0	350.5
Catavissa (B)	(96)	(96)/2.31	(41.5)	0.15	0.0
Catawissa (T)	368	368/2.75	133.8	2.0-	276.5
Centralia (B)	(63)	(63)/2.03	0-0	0.5	0.0
Cleveland (T)	103	103/2.72	37.8	2.0	75.6
Conyngham (T)	(143)	(143)/2.60	(55.0)	1.0	0.0
Fishing Cresk (T)	226	226/2.73	82.9	1.0	82.8
Franklin (T)	100	100/2.80	15.7	2.0	71.4
Greenwood (T)	53	39/2.82	20.9	2.0	41.8
Hemlock (T)	160	160 /2.62	61.0	1.9	61.0
Jackson (T)	63	63/2.55	24.7	1.0	24.7
Locust (T)	172	172/2.58	66.6	1.0	66.6
Madison (T)	265	265/2.92	90.8	1.0	90.8
Main (T)	195	195/2.90	67.2	2.0	134.4
Mifflin (T)	561	561/2.75	204.0	0.5	102.0
Millville (B)	195	195/2.34	83.3	0.25	20.8
Montour (T)	454	454/2.55	178.0	1.0	178.0
Mt. Pleasant (T)	437	437/2.88	151.7	2.0	303.4
North Centre (T)	677	677/2.76	245.2	1.0	245.2
Orange (T)	.508	508/2.78	182.7	1.0	182.7
Orangeville (B)	36	36/2.67	13.4	0.5	6.7
Pine (T)	267	267/2.73	97.8	2.0	195.6
Roaring Creek (T)	(6)	(6)/2.54	(2.2)	2.0	0.0
Scott (T)	1,511	1,511/2.45	616.7	0.5	1 308.4
South Centre (T)	87	87/2.51	34.6	0.5	1 17.3
Stillwater (B)	22	22/2.69	.8.2	0.5	4-1
Sugarloaf (T)	96	96/2.53.	37.9	1.0	1 37.9
Total Angel And	7,305	-	2,759	-	3,239
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Note: Source: Source:

Farenthesis indicate a negative number Projections were made by Rassuax-Hemsley, Inc., 1993. Data on persons per household was taken from 1990 U.S. Department of Commerce of Census. Bureau It is evident that the projections made above for future industrial land usages vary substantially. However, with consideration being given to the development of a sizeable industrial park by the Columbia County Industrial Development Authority, combined with future individual industrial developments, it would appear that the projection made using past trends (135.8 acres) is more likely to be needed.

6.8.3 Future Recreation Development

Applying the regional recreation standard of 5 to 10 acres of recreational area per every 1,000 persons for county-wide recreation facilities, and subtracting the acreage encompassed by existing County recreation facilities, it would appear that a range of 140 to 450 additional acres will be needed through the year 2010 to accommodate the County's projected population. However, since there is nearly 35,000 acres of State Game and Park Lands and wildlife preserves located within the County, it can reasonably be expected that the above referenced need for additional acreage will gravitate towards the lower end of the projected range.

6.8.4 Future Public/Quasi-Public Development

Although it is difficult to project the increase in public/quasi public land usage, it can reasonably be assumed that growth in this land use category will occur. Using existing public/quasi public acreage to population ratios and the County population forecast for the year 2010, we can project a need for an additional 131 acres to accommodate future public/quasi public land uses.

6.9 Potential Development Areas

Pursuant to the development of future land use need projections, it is necessary to delineate vacant developable land areas within the County that are sufficient to accommodate the various types of growth projected for the year The method used to determine these potential 2010. development areas entailed delineating previously undeveloped. land areas (inclusive of agricultural/open space lands and woodlands) which have no physical constraints (i.e., steep slopes, wetlands, floodplains, deep mined areas, mine fire hazards or severe and hazardous soil limitations for sewage Also, those previously undeveloped land areas effluent). which are only constrained from development by severe or hazardous soil limitations for disposal of sewage effluent were identified as potential development sites. It should be realized that areas constrained by soils unsuitable for

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disposal of sewage effluent may be remediated for development uses through the implementation of a centralized wastewater collection/treatment system. However, it should be noted that not all soils with severe limitations for disposal of sewage effluent necessarily require a centralized sewer system. Through individual site specific investigations, portions of these areas may be suitable for on-site sewage disposal systems.

In accordance with the above referenced potential development sites classification system, Map 6-7 has identified those areas of the County which are currently available and suitable for development. A tabulation of the undeveloped land area in each category reveals that there are approximately 67,700 undeveloped acres of land with no constraints and 102,400 undeveloped acres of land constrained from development by severe or hazardous soil limitations for sewage effluent which may be overcome for development purposes by the implementation of a centralized wastewater collection/treatment system. It. is evident when comparing future total projected land use acreage need of between 3,680 and 16,000 acres with just the acreage of undeveloped, unconstrained lands that sufficient land acres will be available to accommodate future land use needs in the County through 2010.







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6.10 Summary of Findings and Conclusions

Population growth and mobility afforded by modern transportation services have resulted in more intensive development patterns and land use demands. Each type of land use is characterized by a specific public demand which cannot be met through normal market processes. Some public action is normally required to deal with the current status of existing land use and regulatory guidance for future land use.

A review of existing land use patterns indicates that a majority of the cultural land use activity existing within the County is located in the North Central Planning Area. This Planning Area encompasses the primary County population and development centers of Bloomsburg and Berwick as well as several other municipalities containing substantial development which include Briar Creek, Scott and South Centre Townships and Briar Creek Borough.

Several general conclusions can be drawn with respect to land development patterns in Columbia County. First, the lands along and adjacent to State Route 11 serves as a high density mixed use development corridor within the County. Outside this mixed use corridor, to both the north and south, the County is dominated by woodlands with large pockets of lowlying agricultural/open space lands and dispersed low-density residential development. However, the three (3) exceptions to these rural outlying areas would be the small developed nodes of Millville, Benton and Catawissa Boroughs.

Due to the inherent discrepancies in land use category definitions between the 1976 land use element and the 1993 land use element, an accurate analysis is not possible. Therefore, attribute data such as subdivision activity, parcels by property assessment, population projections, and employment projections must be utilized in formulating projected future land use needs.

A review of subdivision activity indicates an intense usage in the North Central Planning Area. The remaining Planning Areas have remained rural in nature with agriculture/open space and the woodlands the primary uses.

Using a generalized description of land use activities as a basis in property assessment, five (5) categories were defined. These classifications included agricultural, residential, commercial, industrial, and vacant. At a County level, a total of 30,152 parcels exist. Residential use is the largest category with 19,217 parcels or 63.73% of all assessed property. Vacant land is the second largest category with 5,924 parcels or 19.65% of all assessed property. Agriculture follows as the third largest category with 2,952 parcels or 9.79%, assessed property used for commercial and industrial purposes follow at 6.42% and 0.41% respectively.

At a municipal level, residential is the predominant category in all but one urban center. The percentages range from 72 to 80% for all parcels within the municipalities. These urban centers include Benton Borough, Berwick Borough (the highest value 80.03%), Bloomsburg Town, Briar Creek Borough, Catawissa Borough, Millville Borough, and Orangeville Borough. The exception to this trend is the Borough of Centralia, where residential development comprises 16.52% of the existing land Associated with these nucleated centers are adjacent ps which contain relatively high percentages of use. Townships residential use. These include South Centre and Scott Townships.

Currently, there are 83,133.7 acres zoned by municipalities within Columbia County. Of this acreage, the greatest amount is generally zoned as Agricultural/Rural (105,070.2 acres) with open space a close second at with 101,113.6 acres. Other zoning classifications found within the County in descending order by acreage include: low density residential (9,757.5), medium density residential (7,363.1) high density residential (2,384.8), industrial (1,859.5), highway commercial (1,008.5), general commercial (96.4), and commercial/residential (885.8). When evaluating those municipalities that do have zoning, it appears that priority is given to protecting both agricultural and open space lands.

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A review of the composite zoning map indicates potential areas where zoning conflicts may arise. These areas include:

Town of Bloomsburg and surrounding municipalities; Stillwater Borough and surrounding municipalities; 0 Briar Creek Borough and surrounding municipalities; 0 Berwick Borough and surrounding municipalities; 0 0 Benton Borough and surrounding municipalities; and 0

Mifflin Township and surrounding municipalities.

However, a more detailed evaluation will be necessary to determine the scope of the above referenced problems and potential remediative actions.

Three (8) important techniques are now being used to protect agricultural lands in Columbia County. These programs include differential assessment, agricultural security areas; and purchase of agricultural conservation easements (PACE).

be eligible for participation in the differential To assessment program, an individual must have ownership of a parcel of land of ten (10) acres or more completely committed to agricultural use. Benefits of participating in this program are realized through the reduction of taxes on the property involved.

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Currently, 2,500 parcels of land located throughout the County are participating in the program. Resulting from the program has been a 40% savings in property taxes paid for parcels participating in the program.

To date, Columbia County has established 12 Agricultural Security Areas. They contain 779 parcels and cover 50,789 acres. The benefits of participating in this program is that farmers are protected from local nuisance ordinances and are eligible to participate in the PACE program.

The last method of agricultural preservation technique being considered by the County is PACE. The County is currently considering participating in the PACE program. To date, the County has established the appropriate Agricultural Land Preservation Board to administer the purchase of Agricultural Conservation Easements, but has yet to purchase any easements. Significant historic sites throughout Columbia County were inventoried in the "Columbia County Historic Sites Survey" as prepared by the Columbia County Planning Commission in 1980. This inventory included sites contained in the Columbia County Register, the National Register of Historic Places and the Pennsylvania Inventory. A listing of the historic sites within the County which have been included on the National Register of Historic Places include the Berwick Armory, the two (2) Bloomsburg Historic Districts, the Jackson Mansion and Carriage House, the Catawissa Friends Meeting House, and twenty-five (25) covered bridges. These significant historic resources should be protected and their intensity preserved through the recommendation of compatible land uses in future land use plans.

Population and employment projections have been used to develop future County land use needs. In considering the future needs of residential, commercial, industrial, recreational and public/quasi public land uses, it has been determined that a range of between 3,680 and 16,000 acres must be located and reserved for future development of the above referenced projected land uses.

Pursuant to the development of future land use need projections, it was necessary to identify vacant developable land areas within the County that are sufficient to accommodate the various types of growth projected for the year 2010. The method used to determine these potential development areas entailed delineating previously undeveloped land areas (inclusive of agricultural/open space lands and woodlands) which have no physical constraints (i.e., steep slopes, wetlands, floodplains, deep mined areas, mine fire hazards or severe and hazardous soil limitations for sewage effluent), or these previously undeveloped land areas which are only constrained from development by severe or hazardous soil limitations for disposal of sewage effluent. It should be realized that areas constrained by soils unsuitable for disposal of sewage effluent may be remediated for development uses through the implementation of a centralized wastewater collection/treatment system.

A tabulation of the undeveloped land area in each category reveals that there are approximately 67,000 undeveloped acres of land with no constraints and 102,400 undeveloped acres of land constrained from development by severe or hazardous soil limitations for sewage effluent which may be overcome for development purposes by the implementation of a centralized wastewater collection/treatment system. It is evident when comparing future total projected land use acreage need of 16,000 acres with just the acreage of undeveloped, unconstrained lands that sufficient land acres will be available to accommodate future land use needs in the County through 2010.

7. HOUSING ANALYSIS

CHAPTER 7

HOUSING ANALYSIS

7.1 <u>Introduction</u>

The housing characteristics of a community or municipality are a reflection of the makeup of the residential population, and can be tied to its quality of life. Adequate and attractive housing provides a positive perception of a community, and invites investment in the surrounding region.

In order for a County to adequately plan and provide for citizens of all socioeconomic backgrounds, an inventory and analysis of the housing stock is necessary. Housing needs, both present and future, can be evaluated, and courses of action can be recommended.

7.2 <u>Housing Units</u>

As per the 1990 census, Columbia County has 25,598 housing units. This number amounted to 1,709 more units than 1980. As per the U.S. Census, a housing unit is a house, an apartment, a mobile home or trailer, a group of rooms or a single room occupied as separate living quarters, or, if vacant, intended for occupancy as separate living quarters. Table 7-A provides a breakdown of current and past housing counts for the county and the individual municipalities. As shown on this Table, Columbia County showed a 24.8% increase in housing units from 1970 to 1980, and only 7.2% from 1980 to 1990. Upon a review of the local municipal trends for 1970 to 1980, the most substantial growth is shown for Mt. Pleasant (102.4%) and North Centre (157.5%) Townships, while an actual decrease in housing units is shown for Orange Township (0.5%) and Centralia Borough (-4.1%). As noted, housing growth for the County from 1980 to 1990 decreased from the previous decade, and is also reflected in lower growth rates for the local municipalities. Six (6) municipalities show decreases: Berwick (-3.5%), Briar Creek (-8.7%), Centralia (-91.9%), and Orangeville (-5.6%) Boroughs, and Conyngham (-11.3%) and The highest housing increases Locust (-10.8%) Townships. occurred in Beaver (45.7%), Orange (55.5%), and Roaring Creek (57.1%) Townships. Municipalities that show a continual growth rate of 20+% over both decades are: Beaver, Catawissa, Jackson, Main, Roaring Creek, Scott and Sugarloaf Townships.

Table 7-B provides information on the status of the housing units in regard to owner versus rental occupancy, as well as vacancy rates. For Columbia County, 17,248 housing units are owner-occupied, which equates to 67.4% of the total housing units. Of these units 6,230 units (24.3%) are renteroccupied, while 2,120 units (8.3%)

Page 7-1

are vacant. For individual municipal characteristics, Catawissa (90.3%) and North Centre (92.1%) Townships show the highest percentages for owner occupied housing. As could be expected, the Town of Bloomsburg and select Boroughs contain the highest percentages of renter occupied housing: Benton (31.8%), Berwick (33.6%), Catawissa (34.7%), and Millville (39.2%) Boroughs, and the Town of Bloomsburg (51.8%).

TABLE	17-A
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TOTAL HOUSING UNIT TRENDS, 1970 - 1990

	- HOUSIN	IG UNITS -	1 CHANGE	BOUSING UNITS	CHANGE
MUNICIPALITY	1970	1980	1970-1980	1930	1980-1990
Columbia County	19,136	23,889	24.848	25,598	7.21
Beaver Township	235	282	20.001	411	45.71
Benton Borough	385	401	3.991	415	3.51
Benton Township	272	426	56.621	450	5.61
Berwick Borough	4,476	5,069	13.25%	4,890	-3.51
Bloomsburg Town	3,664	3,896	6.331	4,192	7.61
Briar Creek Borough	144	276	91.671	252	
Briar Creek Township	709	1,100	55.151	1,182	7.51
Catawissa Borough	634	641	1.10	768	19.8
Catawissa Township	213	319	49.77	393	23.21
Centralia Borough	466	447	-4.08%	36	-91.91
Cleveland Township	300	390	30.001	. 444	13.81
Conyngham Township	444	492	10.81%	437	-11.21
Fishing Creek Township	394	592	50.25%	641	8.31
Franklin Township	165	233	41.21	258	10.71
Greenwood Township	449	693	54.341	743	7.21
Hemlock Township	493	594	20.491	619	4.21
Jackson Township	135	200	48.151	244	22.01
Locust Township	401	638	59.101	569	-10.81
Hadison Township	283	470	0.591	555	18.1
Hain Township	209	359	71.778	448	24.81
Kifflin Township	521	777	49.14	875	12.61
Killville Borough	301	346	14.95	392	13.31
Hontour Township	407	569	39.80%	580	1.91
Mt. Pleasant Township	206	417	102.43	495	18.71
North Centre Township	238	613	157.56%	688	12.21
Orange Township	255	254	-0.391	395	55.5
Orangeville Borough	149	162	8.721	.153	-5.61
Pine Township	218	368	68.811	420	14.11
Roaring Creek Township	126	198	57.141	311	57.11
Scott Township	1,264	1,522	20.411	1,866	22.61
South Centre Township	533	761	42.78	773	1.61
Stillwater Borough	70	80	14.291	87	8.71
Sugarloaf Township	357	497	39.22*	614	23.51

SOURCE: U.S. Department of Commerce, Bureau of the Census.

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TABLE 7-B

COLUMBIA COUNTY HOUSING UNITS BY OCCUPANCY, 1990

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HUNICIPALITY	TOTAL HOUSING UNITS	OWNER OCCUPIED	1 OWNER OCCUPIED	RENTER OCCUPIBD	RENTER OCCUPIED	VACANT	N VACANT	VACANT FOR SEASONAL RECREATIONAL OR OCCASIONAL USE
Columbia County	25,598	17,248	67.381	6,230	- 24.34%	2,120	8,281	986
Beaver Twp	411 -	280	68.131	- 45 -	10.951	86	20.921	. 73
Benton Boro	415	249	68.131	132	31.81	34	8.191	4
Benton Twp	450	362	60.001		10.221	42	9.331	27
Berwick Boro	4,890	2,974	80.441	1,644	33.621	272	5,561	10
Bloomsburg Town	4,192	1,753	60.821	2,173	51.841	266	6.351	5
Briar Creek Boro	252	181	41.821	57	22.621	114	5.561	. 0
Briar Creek Twp	1,182	1,024	71.831	111	9.391	47	3.981	15
Catawissa Boro	768	460	86.631	267	34.77	41	5.341	1 1
Catawissa Twp	393 -	355	59.901	22	5.601	16	4.071	1 7
Centralia Boro	36	27	90.33	4.	11.11	5	13.891	l o l
Cleveland Twp	444	328	75.001	38	8.561	78	17.571	53
Conyngham Twp	437 .	320 -	73.23	80	18.311	37	8.471	1 <u>1</u>
Pishing Creek Twp	641	439	68.491	66	10.301	136	21.221	1 110
Pranklin Twp	258	185	71.71	38	14.73	35	13.57	28
Greenwood Twp	743	558	75.108	· 121	16.291	64	8.611	33
Bemlock Twp	619	495	79.97	94	15.191	30	4.851	5
Jackson Twp	244	176	72.131	23	9.431	45	18.441	32
Locust Twp	569	416	73.118	90	15.821	63	11.07	37
Hadison Twp	555	473	85.231	63	11.35%	19	3.421	8
Hain Twp	448	371	-82.81%	57	12.72	20	4.461	
Hifflin Twp	875	735	84.001	102	11.661	30	4.344	13
Millville Boro	392	213	54.348	154	39.291	25	6.38%	3
Nontour Twp	580	461	:79.48	96	16.551	23	3.971	1 1
Ht. Pleasant Twp	495	399	80.611	91	16.36%	[15	3.031	6
North Centre Twp	688	- 634	92.151	39	5.671	15	2.181	5
Orange Twp	395	314 👘	79.491	49	12.41	32	8.10%	27
Orangeville Boro	153	106	69.282	- 30	19.611	1 17	11.11	12
Pine Twp	420	310	73.81	52	12.381	58	13.818	1 5 1
Roaring Creek Twp	311	162	52.091	19	6.110	130	41.801	121
Scott Twp	1,866	1,526	81.781	272	14.58%	68	3.641	
South Centre Twp	773	657	84.991	97	12.55%	19	2.461	
Stillwater Boro	. 87	65	74.711	18	20.691	i i	4.601	
Sugarloaf Twp	614	239	38.931	50	8.141	325	52.931	291
		L						***

SOURCE: U.S. Department of Commerce, Bureau of Census.

Housing units are considered vacant if no one is living in it at the time of census enumeration, unless its occupants are only temporarily absent. Housing units are also classified vacant if they are being occupied at the time of the census by persons who permanently reside somewhere else. New housing units not yet occupied are considered vacant housing units if exterior windows and doors are installed and final usable floors are in place. The County contains 2,120 vacant units (8.3%). The Townships of Beaver (20.9%), Fishing Creek (21.2%), Roaring Creek (41.8%) and Sugarloaf (52.9%) comprise the highest vacancy rates. As reflected on the Table, a majority of the vacant units are for recreational or seasonal use.

7.3 <u>Housing Types</u>

The 1990 census breaks down the types of housing units into the following categories:

<u>1 Unit, Detached</u> - This is a one-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides. Mobile homes or trailers to which one or more permanent rooms have been added or built are also included.

<u>1 Unit, Attached</u> - This is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to non-residential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

<u>2 or more units</u> - These are units in structures containing two or more housing units, furthermore categorized as units in structures with 2, 3, or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more units.

<u>Mobile home or trailer</u> - Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Mobile homes or trailers used only for business purposes or for extra sleeping space and mobile homes or trailers for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

<u>Other</u> - This category is for any living quarters occupied as a housing unit that does not fit the previous categories. Examples that fit this category are houseboats, railroad cars, campers and vans.

Table 7-C shows the number and percentages of housing types for Columbia County.

TABLE 7-C

COLUMBIA COUNTY NUMBER AND PERCENTAGE OF HOUSING TYPES, 1990

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		•			• •	·		· · · ·			•		
· · · · · · · · · · · · · · · · · · ·												•	·
						· ·			I .	1 ·	Percent	# Mobile	1 Mobile
•				·			Percent		Percent	10 or	10 or	Homea	Homes
Mundada a 1 day	m-4-1	1 Unit	1 Unit	1 Unit	1 Unit	2 - 4	2 - 4	5 - 9	5 - 9	Hore	Hore	Trailers	Trailers
Municipatity	10041	Decached,	Detached	Attached	Attached	Units	UNICS	UNICE	Units	Units	Unite	Other	Other
Columbia County	25,598	16,657	65.071	1,577	6.161	2,703	10.561	671	2.621	507	1.981	3,483	13.611
Beaver Twp	411	328	79.811	9	2.191		0.001		0.001	1	0.241	73	17.761
Benton Boro	415	239	57.591	16	3.861	· 89	21.451	. 12 -	2.894	10	2.411	49	11.81
Benton Twp	450	338.	75.111	· 1	0.221	. 15	3.331		0.00		0.001	96	21.331
Berwick Boro	4,890	2,879	58.881	499	10.201	924	18.901	161	3.29	96	1.961	331	6.771
Bloomsburg Town	4,192	1,674	39.931	613	14.621	1,115	26.60	371	. 8.851	245	5.841	174	4.151
Briar Creek Boro	252	111	44.051	5.	1.981	5	1.98		\$00.0 ·		0.001	131	51.98
Briar Creek Twp	1,182	927	78.431	9	0.761	10	0.851		0.001	1	0.091	235	19.88
Catawiasa Boro	768	435	56.641	<u> </u>	9.514	- 99	12.891	29	3.78%	77	10.031	55	7.16
Catawissa Twp	393	353	89.021		0.001	. 1	0.25%		0.00%		0.001	39	.9.921
Centralia Boro	36	20	55.561	12	33.33	·	0.001		0.001		0.001	4 - 1	. 11.111
Cieveland Twp	444	379	85.361	2	0.451	. 2	0.45%		0.001		0.001	61	13.74
Conyngham Twp	437	195	44.621	213	48.741	5	1.148	: - ,	0.001		0.001	24	5.491
Fishing Creek Twp	641 .	540	84.241	2	0.311	2	0.31	· • • • `	0.001		0.001	97	15.13
Pranklin Twp	258	206	79.841	2	0.781	3	1.161		0.00		0.001	47	18.221
Greenwood Twp	743	· 568	76.451	7	0.941	26	3.501	1	0.130	1	0.13	140	18.84
Henlock Twp	619	517	83.521	5	0.811	9	1.451	2	0.321		0.00%	86	13.89
Jackson Twp	244	185	75.821	3	1.231	4	1.641		0.00%	'	0.00%	52	21.31
Locust Twp	. 569	454	79.791	3	0.53	14	2.46%	· . 5	0.86%		0.001	93	16.341
Radison Twp	555	. 449	80.901	4	0.721	14	2.521		0.00%		0.001	88	15.86
Hain Twp	448	330	73.661	9	2.01	r i 12	2.68	16	3.571	1	0.221	60	17.86%
Millin 1Wp	875	681	77.831	10	1.144	- 34	3.891		CO.00%		0.001	150	17.148
MILIVILLE BOTO	392	228	58.161	19	4.851	72	18.37	- 16 - 16	4.081	. 43	10.971	14	3.571
Montour 1Wp	580	- 398	68.62	4	0.691	21	3.621	. 2	0.341	31	5.341	124	21.381
North Cashar Twp	495	393	79.391	2	0.401	22	4.448		0.001		0.001	78	15.761
Autor Centre 1wp	088	439	63.811	2	0.291	- 6	0.871		0.001		0.00%.	241	35.031
Orange ille Boro	393	294	74.431	2	0.514	6	1.521		0.001	÷	0.001	93	23.54
Pine Turn	100	122	79.741	13	8.501	11	7,19		0.001		0.00%	7	4.58%
Roaring Creek Two	311	- 307 -	73.101		0.951	2	0.48	1	0.241		0.001	106	25.24
Scott. Two	1 866	7 760	79.208	4	1.291	2	0.641		0.001		0.001	74	23.79
South Centre Two	-/000	1,300	CE 734	23	1.23	. 124	6.65	.55 🖓	2.95		0.001	296	15.861
Stillwater Boro	97	500	77 016	3	U.39%	43	5.56		0.001	1	0.134	219	28.201
Sugarloaf Tim	614	407	00 134		2.30	. 6	6.90		0.001		0.001	12	13.791
jettogt tab	914	474	00.134		0.331	5	0.811		0.001	. 	0.001	· 115	18.73

Source: U.S. Department of Commerce, Bureau of Census.

The County breakdown of housing types is descending order are:

COLUMBIA COUNTY

	Number	<u>Percentage</u>
1 Unit Detached	16,657	65.07
Mobile Homes, Trailers, Others	3,483	13.61
2 to 4 Units	2,703	10.56
1 Unit, Attached	1,577	6.16
5 to 9 Units	671	2.62
10 or More Units	507	1.98

Upon review of the local municipal data, it becomes apparent that the greatest mix of housing types occurs within some of the higher density municipalities, including Benton, Berwick, Catawissa, and Millville Boroughs, along with the Town of Bloomsburg. Main, Greenwood and Montour Townships also show inclusion of all the noted housing types. The Townships of Briar Creek, Hemlock, Locust, Pine, Scott and South Centre contain housing in all but one of the respective housing types.

Also of noteworthiness is the percentage of mobile homes within the County. While the County average is 13.6%, the local municipal figures range from highs of 51.9% (Briar Creek Borough) and 35.0% (North Centre Township), to lows of 3.6% (Millville Borough) and 4.1% (Town of Bloomsburg).

7.4 <u>Housing Characteristics</u>

As shown on Table 7-D, the average number of rooms for all listed housing units in the County was 5.7. The rate for local municipalities did not specifically variate from this average. No municipality averaged below 5.1 rooms, or above 6.8. As per 1990 U.S. Census information, owner occupied units have a mean of 6.2 rooms per unit, as opposed to 4.8 for renter occupied. In addition, persons per housing unit averages 2.6 for owner occupied, while renter occupied averages slightly less, 2.36. Therefore it appears that owner-occupied housing units throughout the County are typically larger and are inhabited by more people than renteroccupied units.

Overcrowded conditions for a housing unit is specified by the U.S. Bureau of Census as a unit having 1.01 or more persons per room. Table 7-D indicates that only three local municipalities have no overcrowded housing conditions. These include Centralia and Orangeville Boroughs and Conyngham Township. Of the County's listed 364 overcrowded units, a majority are found within the County's two main population centers: Berwick (47) and Bloomsburg (122).

TABLE 7-D

COLUMBIA COUNTY STRUCTURAL AND VACANCY CHARACTERISTICS OF ALL OCCUPIED HOUSING UNITS, 1990

		- All Housing	g Units -	- Occupied Housing Units -		
Municipality	-2 ⁻¹ -2	Total	Mean Number of Rooms	Total	With 1.01 or More Persons per Room	
Columbia County		25,598	5.7	23,478	364	
Beaver Twp		411 .	5.7	325	11	
Benton Boro		415	5.9	381	5	
Benton Twp		450	6.0	408	6	
Berwick Boro		4,890	5.5	4,618	47	
Bloomsburg Town		4,192	5.4	3,926	122	
Briar Creek Boro		252	5.2	238		
Briar Creek Twp		1,182	5.8	1,135	14	
Catawissa Boro		768	5.8	727	4	
Catavissa Tup		393	6-2	. 377	4	
Centralla Boro		36	6.0	31		
Cleveland Twp		444	6.0	366	3	
Conyngham Twp		437	6.2	400	0	
Pishing Creek Twp	•	641	6.0	505	?	
Franklin Twp		258	6.2	223	3	
Greenwood Twp		: 743	6.0	679	14	
Hemlock Twp		619	6.0	589	4	
Jackson Twp		244	3.6	199	9	
Locust Twp		569	6.2	506	7	
Madison Twp		- 555	6.1	536	12	
Main Twp		448	6.1	428	10	
Mifflin Twp		875	5.8.	837.	7	
Millville Boro		392	5.8	367	2	
Montour Twp		580	5.5	557	21	
Mt. Pleasant Twp		495	6.1	480	· <u>·</u>	
North Centre 1wp		088	5.8	6/3	-	
Orange 1wp		395	6.1	303	4	
Diangeville Boro		153		130		
Pine 1wp		420	2.3	102		
Roaring Creek 1Wp	•	1	6 1	1 700		
South Centre fun	· ·	1,000	0 • 1 15 ¢	754	,	
South Centre 1Wp		1/3	6.1	134	2	
Sugarlouf Thm		614	5 1	780	2	
anderroat imb		1 014	3.4	209	د د	

Source: U.S. Department of Commerce, Bureau of Census.

7.4.1 Age of Housing

A structure's age can be a general guide to potential problems or deficiencies with structural design or condition. Table 7-E separates housing construction by time periods:
TABLE 7-E AGE OF COLUMBIA COUNTY HOUSING STOCK

YEAR BO	USING UNITS WERE BUILT	
1989 to	March 1990	304
1985 to	1988	1,319
1980 to	1984	1,945
1970 to	1979	5,129
1960 to	1969	2.447
1950 to	1959	2,697
1940 to	1949	2.041
1939 01	earlier	9,716

Source: U.S. Department of Commerce, Bureau of Census.

As shown, the time period of greatest construction was prior to 1939 in which approximately 37% of all County housing units were constructed. The time period of 1970 to 1979 showed the second highest amount of building construction. This latter time period observed the construction of over 20% of the entire housing stock within the County.

7.4.2 Utilities

Another indicator of the degree of housing quality is the lack of complete plumbing facilities or kitchen facilities. In Columbia County, only 0.8% of the total number of housing units lack complete plumbing facilities (Table 7-F). These units are dispersed over 22 of the county's local municipalities. The highest concentration of such units, in regard to percentage, are found in the Townships of: Beaver (3.6%), Cleveland (2.7%), Conyngham (12.1%), Locust (2.1%), Madison (2.2%), Orange (3.3%) and Pine (2.6%).

In the County, 1.1% of the dwellings lack complete kitchen facilities, encompassing 23 of the municipalities. A complete kitchen includes all of the following: 1) an installed sink with piped water, 2) a range, cook top and convention or microwave oven, or cook stove, and 3) a refrigerator.

Table 7-F also provides data on the type of sewer and water utility service available for the county's dwellings. As per the 1990 U.S. Census, 53% of the County utilized public water systems or a private company water system. As expected, the main population centers of the County are largely served by public or community systems. However, some municipalities that are predominantly rural also have notable numbers of dwellings served by public or community water systems, mainly due to concentrated centers of development. These municipalities would include: Hemlock (25.4%), Main (26.8%), Mifflin (44.2%) and South Centre (36.7%).

TAB	LE	7-	F

COLUMBIA COUNTY PERCENTAGE OF ALL HOUSING UNITS WITH CERTAIN PLUMBING CHARACTERISTICS, 1990

Municipality	All Housing Units	Lacking Complete Plumbing Facilities	With Public Water System Private Company	Well, Other Water Supply	With Public Sewer	On-Lot Sawaga Disposal	Lacking Complete Kitchen Facilities
Columbia County	25.598	0.81	53.01	47.01	42.11	57.91	1:11
Beaver Two	411	3.61	1.75	98.31	1.01	99.01	1.71
Benton Boro	415	1.01	89.61	10.41	7.51	92.51	6.01
Benton Two	450	1.61	8.01	92.01		100.01	
Berwick Boro	4,890	0.61	98.31	1.71	95.81	4.24	1.41
Bloomsburg Town	4,192		98.51	1.51	97.91	2.11	1.01
Briar Creek Boro	252	1.61	11.21	88.81	4.01	96.01	0.81
Briar Creek Twp	1,182	0.5	18.11	81.91	1.2	98.81	1.81
Catawissa Boro	768		98.01	2.01	96.41	3.61	0.51
Catawissa Twp	393	0.81	10.31	89.71	4.51	95.5	
Centralia Boro	36		100.01		100.01		17.11
Cleveland Twp	444	2.71	1.11	98.91	0.41	99.61	2.01
Conyngham Twp	437	2.11	90.8	9.21	3.91	96.1	1.81
Fishing Creek Twp	641	0.31	0.5	99.51		100.01	
Franklin Twp	258	1.61		100.01	0.ġ	99.28	1.91
Greenwood Twp	743	1.51	2.41	97.61	6.31	93.71	2.21
Bemlock Twp	619	1.11	25.41	74.61	0.61	99.41	
Jackson Twp	244			100.01		100.01	
Locust Twp	569	2.11	3.71	96.31	5.31	94.78	1.11
Madison Twp	555	2.28	2.51	97.51	2.91	97.18	
Main Twp	448	0.4.	26.81	73.28	27.01	73.08	0.41
Hifflin Twp	875	1.71	44.21	55.84	1.01	99.05	0.81
Hillville Boro	392		79.11	20.91	81.61	18.41	2.61
Montour Twp	580		23.61	76.41	3.81	96.28	0.91
Mt. Pleasant Twp	495	0.61	1.01	99.01	0.41	99.68	0.41
North Centre Twp	688	1.48	8.71	91.34	10.61	89.41	
Orange Twp	. 395	3.31	3.01	97.01	6.51	93.54	2.51
Orangeville Boro	153		85.61	14.41	5.51	94.58	
Pine Twp	420	2.61		100.01		100.00	1.20
Roaring Creek Twp	311		1.61	98.48	1.61	98.49	
Scott Twp	1,866	0.61	56.81	43.28	18.61	81.41	0.63
South Centre Twp	773		36.71	63.38	11.41	88.61	0.01
Stillwater Boro	87			100.05	-	100.00	
Sugarloaf Twp	614	 .	1.01	99.01		100.00	2.31
				33.00		100.08	1. 0.78

Source: U.S. Department of Commerce, Bureau of Census.

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With respect to sewage disposal the County has 42.1% of its dwellings serviced by public sewers, with Bloomsburg, Berwick, Catawissa Borough, Centralia and Millville accounting for the bulk of the sewered dwellings. Public sewage service to outlying and rural municipalities is limited.

In regard to home heating, fuel oil has the highest preference in Columbia County with a percentage of 45.1% (Table 7-G). Electricity is the second choice of County residents with 19.4% of the dwellings utilizing this method of heating. Others in order of preference are: utility gas (19%), other or none (15.7%), and bottled, tank or LP Gas (2.9%).

7.5 <u>Housing Conditions</u>

Characteristics as already mentioned, such as plumbing and kitchen facilities, have an impact on a dwelling units value or condition. A more specific means of evaluating a dwelling's condition is through actual field observation. Such current data is available through the Columbia County Tax Assessment Office. This information can be useful in evaluating potential housing needs throughout the Columbia County municipalities. Table 7-H provides a rundown of criteria applied to Columbia County's residential dwellings. The noted characteristics of each grade are as follows:

<u>A Grade</u>

- 1. Excellent quality of materials, workmanship, condition, design and setting.
- 2. House will usually sell for more than \$150,000.
- 3. House usually built since the 1970's; however, there will be some older homes in this category.
- 4. House usually has at least 1,800 square feet of living area, but typically has 3,000 square feet of living area.

<u>B</u> <u>Grade</u>

- 1. Good quality of materials, workmanship, condition, design and setting.
- 2. House will usually sell for between \$100,000 and \$150,000.
- 3. House usually built since the 1970's; however, there will be some older homes in this category.
- 4. House usually has at least 1,200 to 2,500 square feet of living area, but typically has 1,800 square feet of living area.

<u>C</u> <u>Grade</u>

1. Average quality of materials, workmanship, condition, design and setting.

- House will usually sell for between \$50,000 and \$100,000.
 House usually built between 1930 and 1975; however, there will be some older and newer homes in this category.
 House usually has at least 1,000 to 2,000 square feet of
- House usually has at least 1,000 to 2,000 square feet of living area, but typically has 1,200 square feet of living area.

<u>D</u><u>Grade</u>

- 1. Fair to poor quality of materials, workmanship, condition, design and setting.
- 2. House will usually sell for less than \$50,000.
- 3. House usually built before 1940; however, there will be some newer homes in this category.
- 4. House usually has at least 1,000 to 3,000 square feet of living area, but typically has 1,800 square feet of living area.

A majority or 52.8% of the county's residential dwellings fall under the D Grade, followed by C = 31.3%, B = 13.6%, and A = 2.3%.

	· · · ·				· · · · · · · · · · · · · · · · · · ·	
Municipality	All Occupied Housing Units	Utility Gas	Bottled, Tank, or LP Gas	Electric	Fuel Oil, Kerosene, Btc.	Other or None
Columbia County	23,478	19.0	2.9	19.4	45.1	13.7
Beaver Twp	325		7.4	12.0	51.7	28.9
Benton Boro	380			17.4	69.5	13.2
Benton Twp	408		3.4	20.6	54.4	21.6
Berwick Boro	4,619	46.6	2.3	12.3	32,6	6.2
Bloomsburg Town	3,926	39.6	1.1	23.8	32.4	3.0
Briar Creek Boro	234	11.1	6.4	12.8	61.5	9.1
Briar Creek Twp	1,101	6.8	6.0	23.4	48.1	15.6
Catawissa Boro	727	0.7	4.4	20.5	67.0 .	7.4
Catawissa Two	382	· • •	2.4	27.0	46.9	23.8
Centralia Boro	26]	32.1	39.3	28.6
Cleveland Twp	369		1.4	15.4	48.8	34.4
Conyngham Twp	400	1.5	2.5	10.3	53.0	32.8
Fishing Creek Twp	505		5.7	22.0	51.5	20.8
Franklin Two	221		1.8	20.4	49.8	28.1
Greenwood Twp	679		0.9	15.6	58.5	25.0
Hemlock Two	589	8.8	3.2	12.7	55.7	19.5
Jackson Two	199		5.5	18.6	42.2	33.7
Locust Twp	506		2.0	20.6	56.5	20.9
Hadison Two	536	0.7	2.6	19.6	49.1	28.0
Main Twp	428		3.7	24.1	46.0	26.2
Mifflin Twp	837	1	5.4	18.6	62.2	13.7
Millville Boro	367			26.2	61.0	12.8
Nontour Twp	557	11.3	5.9	20.5	51.3	11.0
Mt. Pleasant Twp	480		2.9	- 24.2	48.1	24.8
North Centre Two	677	0.3	9.3	21.6	47.0	21.9
Orange Twp	364		1.9	30.2	41.2	26.6
Orangeville Boro	129		1.6	9.3	67.4	21.7
Pine Twp	362		1.1	6.1	56.9	35.9
Roaring Creek Twp	183		3.8	10.4	55.7	30.1
Scott Two	1,824	19.7	2.0	28.2	42.9	. 7.2
South Centre Two	763	20.1	5.0	19.0	48.0	8.0
Stillwater Boro	84			28.6	50.0	21.4
Sugarloaf Twp	289		0.7	15.6	56.1	27.7

TABLE 7-G

PERCENTAGE OF OCCUPIED HOUSING UNITS WITH CERTAIN FUEL CHARACTERISTICS, 1990

Source: U.S. Department of Commerce, Bureau of Census.

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Upon review of this information seven (7) municipalities have 25% or more of their residential dwellings graded as A or B. These include: Cleveland, Main, Mt. Pleasant, North Centre, Orange, Scott and South Centre Townships. In regard to the D Grade, five (5) municipalities have 75% or more of their dwellings under this category, including: Benton, Catawissa, Centralia and Orangeville Boroughs, and Conyngham Township.

One should not be mislead by the D grade or always construe this grade as indicating substandard housing. Many times this rating will apply to a smaller, older single-family dwelling that is well kept and is in no-way substandard.

TABLE 7-H

COLUMBIA COUNTY HOUSING CONDITIONS BY GRADE, 1991 - 1992

· · · ·	Total. Res.	1	Properties	by Grade	*****		1 by	Grade	
Hunicipality	Properties	A	B	C	D	A	B	С	D
Columbia County	15,032	353	2,047	4,699	7,933	2.31	13.61	31.31	52.81
Beaver Two	199		21	60	118	0.01	10.61	30.21	59.31
Benton Boro	254		7	46	201	0.01	2.8	18.11	79.1
Benton Twp	. 211	3	48	68	92	1.41	22.71	32.28	43.61
Berwick Boro	3,302	18	160	845	2,279	0.51	4.81	25.61	69.01
Bloomsburg (Town)	2,217	41	263	487	1,426	1.81	11.9%	22.01	64.31
Briar Creek Boro	102	1	8	32	61	1.01	7.81	31.48	59.81
Briar Creek Twp	841	29	176	397	239	3.41	20.91	47.21	28.41
Catawissa Boro	481	1	15	48	417	0.21	3.11	10.01	86.71
Catawissa Twp	273	11	63	120	79	4.01	23.11	44.0%	28.91
Centralia Boro	26				26	0.01	0.01	0.01	100.01
Cleveland Twp	200	15	47	80	58	7.5%	23.51	40.01	29.0%
Conyngham Twp	388	2	30	54	302	0.5%	7.71	13.91	77.8
Fishing Creek Twp	251	6	33	101	111	2.41	13.11	40.21	44.21
Franklin Twp	97	2	12	36	47	2.11	12.41	37.1	48.51
Greenwood Twp	375	6	. 55	130	184	1.61	14.71	34.71	49.11
Hemlock Twp	396	. 5	36	125	230	1.31	9.11	31.6%	58.11
Jackson Twp	92		14	32	46	0.01	15.21	34.81	50.01
Locust Twp	286	1	38	85	162	0.31	13.31	29.71	56.61
Madison Twp	253	9	37	106	101	3.61	14.6%	41.98	39.91
Main Twp	265	4	79	108	74	1.51	29.81	40.81	27.91
Mifflin Typ	589	11	85	271	222	1.9%	14.4%	46.0%	37.71
Millville Boro	224	1.	22	54	147	0.41	9.8%	24.14	65.61
Montour Twp	367	10	49	141	167	2.71	13.41	38.41	45.51
Ht. Pleasant Twp	285	10	74	138	63	3.51	26.01	48.41	22.1
North Centre Twp	362	11	107	153	91	3.01	29.6	42.31	25.11
Orange Twp	216	22	89	65	40	10.21	41.2%	30.11	18.51
Orangeville Borough	121	~ -	.5	17	99	0.01	4.11	14.01	81.8%
Pine Twp	159	1	11	44	103	0.6%	6.9%	27.71	64.81
Roaring Creek Twp	. 90		14	25 -	- 51	0.01	15.6%	27.81	56.71
Scott Twp	1,409	. 124 .	309	566	409	. 8.8.	21.91	40.21	29.01
South Centre Twp	505	9	129	214	154	1.61	25.51	42.41	30.51
Stillwater Boro	49		2	16	31	0.01	4.11	32.71	63.31
Sugarloaf Twp.	148	1	9	35	103	0.71	6.1%	23.61	69.61

SOURCE: Columbia County Tax Assessment Office.

7.6 Housing Value and Rental Rates

Table 7-I provides information directly relating to Housing Value. As shown, a majority of the county dwellings are within the \$50,000 - \$99,000 range (5,487 units) followed by under \$50,000 (4,997), \$100,000 - \$149,000 (854), \$150,000 -\$199,000 (223) and \$200,000+ (84). A review of the lower and upper quartile, and median for housing values can show specific characteristics of the housing value. As specified by the U.S. Bureau Census, a quartile is a measure which divides a distribution into four equal parts. The first quartile (or lower quartile) is the value that defines the upper limit of the lowest one-quarter of the cases. The second quartile is the median. The third quartile (or upper quartile) defines the lower limit of the upper one-quarter of the cases in the distribution.

In reviewing the total distribution of the data, North Centre, Orange and Scott Townships appear to represent the highest overall housing range values, and Catawissa and Centralia Boroughs and Conyngham Township are lowest overall.

TABLE 7-I

Hunicipality	Total Housing Units	Less than \$50,000	\$50,000 to \$99,000	\$100,000 to \$149,000	\$150,000 to \$199,999	\$200,000+	Lower Quartile (dollars)	Hedian (dollars)	Upper Quartile (dollars)
Columbia County	11 645	4.997	5.497	854	777	94	30 700	54 000	75 400
Beaver Two	155	70	70	13			34 600	57,200	72 600
Benton Boro	188	89	96		-		35.400	51 400	67.500
Benton Two	153	61	81	Ē	3		41,600	56,000	72,600
Berwick Boro	2.429	1,530	836	51	5	7	31,800	43,800	57.700
Bloomsburg (Town)	1.404	581	702	83	27	11	40,500	55,000	73,700
Briar Creek Boro	78	30	42	4	2		40.900	60,000	75.900
Briar Creek Two	706	236	357	84	19	10	44.600	64.700	89,800
Catawissa Boro	385	260	122	3	-		31,600	41.000	55.000
Catawissa Twp	234	59	150	17	7	1	49,900	65,000	84.500
Centralia Boro	18	12	6		- 1		24,200	33,300	57.500
Cleveland Twp	180	64	100	13	3		40,800	61,100	79.900
Convnghan Two	290	188	82	20	-		22.500	38,500	62.100
Fishing Creek Two	202	87	105	7	1	2	37,800	54.800	73.000
Franklin Twp	84	31	42	7	4		41,000	60,800	80.800
Greenwood Twp	296	125	155	15 '	1		39,700	54.300	71,800
Hemlock Twp	335	149	160	22	· 4		39,500	54.400	75.500
Jackson Twp	73	31	37	4	1		35,300	54.600	73,600
Locust Twp	226	87	112	23	3	1	40,800	57.200	77.700
Madison Twp	220	83	125	. 5	5	2	39,100	56.900	74,300
Main Twp	237	65	138	27	6	1	47,400	65,600	88,900
Mifflin Twp	523	· 177	304	36	5	1	44,100	59,000	77.600
Hillville Boro	167	70	88	. 8	-	1	39,200	54,800	75,900
Montour Twp	305	95	160	39	8	3	46,700 .	61,500	85,100
Mt. Pleasant Twp	253	70	149	26	6	2	47,400	64,800	86,700
North Centre Twp	317	78	184	44	6	5	50,300	70,900	93,000
Orange Twp	169	32	76	44	14	1	57,900	80,700	114,400
Orangeville Boro	86.	48	37		-	1	29,200	44,000	62,300
Pine Twp	128	56	69	2	1		38,500	53,600	67,300
Roaring Creek Twp	66	23	35	7	1		43,100	60,000	76,400
Scott Twp	1,154	280	569	196	77	32	50,700	71,100	103,400
South Centre Twp	423	151	229	33	8	2 .	41,800	62,200	81,300
Stillwater Boro	40	17	17	4	1 1	1	42,000	57,500	75,000
Sugarioaf Twp	120	61	50	6	3		36,400	49,600	69,600

DISTRIBUTION OF COLUMBIA COUNTY HOUSING UNITS BY SALE VALUE (DOLLARS), 1990

Source: U.S. Department of Commerce, Bureau of Census.

Rental rates are an important aspect of a community in respect to providing for a full range of residents. The ranges for Columbia County rents, as reflected in Table 7-J are: \$250 (2,967), \$250-499 (2,291), \$500-749 (145) and \$750 + (73). A majority of the \$500+ rental rates are in the Town of Bloomsburg. Municipalities that represent the overall highest rental range are: the Town of Bloomsburg and Main Township, while the overall lowest are in Catawissa and Centralia Boroughs and Conyngham Township.

TABLE 7-J

					<u></u>			
Municipality	Total	Less than \$250	\$250 to \$499	\$500 to \$749	\$750+	Lower Quartile (dollars)	Median (dollars	Upper Quartile (dollars)
Columbia County Beaver Twp Benton Boro Benton Boro Berwick Boro Bloomsburg (Town) Briar Creek Boro Briar Creek Boro Catawissa Boro Catawissa Twp Catawissa Twp Catawissa Twp Catawissa Twp Conyngham Twp Fishing Creek Twp Franklin Twp Greenwood Twp Hemlock Twp Jackson Twp Main Twp Main Twp Mifflin Twp Mifflin Twp Mifflin Twp Mifflin Twp Milville Boro Montour Twp Mt. Pleasant Twp North Centre Twp Orange Twp Corange Twp South Centre Twp	5,476 24 127 28 1,531 2,112 52 80 250 12 211 68 34 25 68 34 25 32 32 32 32 45 74 143 55 25 28 26 26 26 239 83	2,967 18 85 24 890 884 39 57 186 8 2 9 66 21 15 67 45 12 34 19 20 20 37 108	$\begin{array}{c} 2,291 \\ 6 \\ 42 \\ 4 \\ 633 \\ 1,012 \\ 13 \\ 23 \\ 64 \\ - \\ 1 \\ 2 \\ 13 \\ 9 \\ 8 \\ 21 \\ 12 \\ 18 \\ 12 \\ 18 \\ 12 \\ 31 \\ 40 \\ 41 \\ 22 \\ 10 \\ 5 \\ 6 \\ 6 \\ 1 \\ 129 \\ 43 \end{array}$	$ \begin{array}{c} 145 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	73	183 125 196 150 185 205 205 179 173 100 100 160 160 161 153 159 168 144 177 208 221 170 162 213 180 166 163 179 152 125 209	241 179 229 185 236 269 219 213 178 225 125 206 100 221 225 186 226 180 225 238 238 238 231 231 231 235 248 235 208 235 208 257	300 250 265 229 287 341 250 269 252 325 175 241 100 295 281 295 278 306 371 292 267 316 288 313 275 248 244 325 269 269 267 316 289
Sugarlosf Twp.	28	12 20	8			181	216 213	236

DISTRIBUTION OF COLUMBIA COUNTY HOUSING UNITS BY RENTAL RATES (DOLLARS), 1990

Source: U.S Department of Commerce, Bureau of Census. State Contents of the second state of the second sta

7.7 <u>Housing Costs</u>

The affordability of housing based on income is a major factor in attracting business and industry, new residents, and keeping current residents. Table 7-K provides insight as to the owner occupied housing costs for Columbia County. For homeowners with a mortgage, the medium monthly owner costs are \$531, which amounted to 17.8% of the owners household income. Monthly costs by municipality varied greatly, from highs of \$643 (Scott), \$642 (Main) and \$612 (Orange) to lows of \$425 (Orangeville), \$440 (Beaver) and \$458 (Conyngham). The percentage of housing costs of the household income for local municipalities ranged from 25% (Sugarloaf), to 13% (Millville).

For housing costs of homeowners without mortgages, the average cost for the County as a whole was \$199, with the percentage of household income being 13.2%. There was very limited fluctuation from these figures in the local municipalities.

Variations were evident throughout the County in regard to median gross rent as a percent of household income (Table 7-L). The County average was 24.4%, which is noticeably higher than the percent stated earlier for homeowners. Cleveland and Jackson Townships and Stillwater Borough reflected high rates of over 30%, while Conyngham, Fishing Creek and Sugarloaf Townships all showed rates under 15%.

TABLE 7-K

COLUMBIA COUNTY HOMEOWNER COSTS CHARACTERISTICS WITH AND WITHOUT A MORTGAGE, 1989

	WITH A MORTGAGE			NOT HORTGAGED			
Tot Bcm Municipality Own	Andian Monthly Nors (dollars)	% of Household Income in 1989	Total	Median Monthly Costs (dollars)	<pre>% of Household Income in 1989</pre>		
Columbia County Beaver Twp Benton Boro Benton Boro Benton Twp Berwick Boro Briar Creek Boro Briar Creek Boro Briar Creek Twp Catawissa Boro I Catawissa Twp Centralia Boro Cleveland Twp Conyngham Twp Conyngham Twp Conyngham Twp Tranklin Twp Greenwood Twp Hemlock Twp Madison Twp Madison Twp Madison Twp Main Twp Mifflin Twp Mifflin Twp Mifflin Twp Mifflin Twp Montour Twp North Centre Twp Roaring Creek Twp Scott Twp Scott Twp South Centre Twp South Centre Twp South Centre Twp South Centre Twp South Centre Twp Stillwater Boro Sugarloaf Twp.	600 531 62 440 80 531 80 531 80 531 80 531 80 531 80 531 80 531 80 531 80 531 79 464 455 507 98 506 125 548 $$ $$ 98 506 102 458 102 458 124 500 33 528 132 508 149 642 127 583 127 $5 83$ 127 $5 83$ 121 $5 51$ 125 425 591 643 1211 551 23 481	17.8 17.9 17.9 16.9 17.3 16.9 17.3 16.9 17.3 16.9 17.3 16.2 20.1 21.5 20.6 18.1 17.1 20.2 14.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 13.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 18.7 19.2 16.2 20.5 19.2 16.2 20.5 18.1 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 14.0 19.5 20.9 17.2 18.0 19.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.5 20.0 21.0 20.0 21.0 20.0	6,181 91 106 65 1,524 862 316 232 95 219 89 187 69 43 167 150 275 100 173 63 41 30 63 41 33 596 214 271	199 179 201 201 205 196 191 180 1657 177 180 1657 177 189 1884 212 185 216 1884 212 212 185 195 195 195 195 195 195 205 191	13.2 12.7 15.6 11.5 14.2 13.1 14.6 12.9 12.8 12.8 12.8 12.8 12.8 12.5 13.9 13.5 12.4 12.7 11.9 13.7 12.0 11.5 12.5 13.2 13.7 12.0 11.7 12.5 13.2 13.2 13.2 13.5 12.5 13.2 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.6 13.7 12.6 13.7 12.6 13.7 12.6 13.7 12.7 12.5 13.7 12.6 13.7 12.6 13.7 12.7 12.6 13.7 12.6 13.7 12.6 13.7 12.7 12.7 12.5 13.7 12.6 13.7 12.6 13.7 12.6 13.7 12.6 13.7 12.6 13.5 12.6 13.5 12.6 13.5 12.7 12.6 13.5 12.7 13.5 12.6 13.5 12.7 12.7 12.7 12.5 13.7 12.5 13.7 12.5 12.6 13.7 12.7 11.5 12.7 12.7 11.5 12.6 13.7 12.7 11.5 12.6 13.7 12.7 11.5 12.7 11.5 12.7 11.5 12.7 11.5 12.7 11.5 12.5 13.7 12.7 11.5 12.5 13.7 12.5 13.7 12.7 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.5 13.7 12.7 13.7 12.5 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 13.7 12.7 12.7 12.7 12.7 12.7 12.7 12.7 12		

Source: U.S Department of Commerce, Bureau of Census.

TABLE 7-L

Municipality	Total Renters	Median Gross Rent (dollars)	Median Gross Rent as & of Household Income in 1989
Columbia County	6,230	337	24.4
Beaver Twp	45	317	22.5
Benton Boro	135	.301	24.3
Benton Twp	46	· 278	20.0
Berwick Boro	1,644	335	24.8
Bloomsburg (Town)	2,173	358	26.8 /
Briar Creek Boro	56	295	26.0
Briar Creek Twp	61	248	29.2
Catavissa Boro	267	256	27.0
Catavissa Twp	24	342	18.3
Centralia Boro	2	125	22.5
Cleveland Twp	40	350	31.7
Conyngham Twp	80	199	14.7
Pishing Creek Twp	66 -	331	14.8
Franklin Twp	43	331	18.0
Greenwood Twp	121	292	27.5
Bemlock Twp	94 -	335	20.8
Jackson Twp	24	267	31.7
Locust Twp	· 90	327	17.1
Madison Twp	63	355	20.5
Hain Twp	57	378	17.7
Hifflin Twp	102	321	20.0
Hillville Boro	154	301	22.0
Hontour Twp	96	346	15.1
Mt. Pleasant Twp	81	347	16.9
North Centre Twp	40	339	21.3
Orange Twp	51	341	20.0
Orangeville Boro	34	346	19.3
Pine Twp	52	277	21.7
Roaring Creek Twp	14	280	16.7
Scott Twp	315	348	19.5
South Centre Twp	96	353	24.6
Stillwater Boro	15	321	30.4
Sugarloaf Twp.	49	290	12.0

COLUMBIA COUNTY RENTAL COST CHARACTERISTICS, 1989

Source: U.S. Department of Commerce, Bureau of Census.

7.8 <u>Subsidized Housing</u>

The Housing Authority of Columbia County is the primary agency administering housing for low and moderate income families. At the present time, the Housing Authority administers 302 Section 8 certificates and vouchers County-wide. The Authority's Section 8 Program consists of rental certificates which can be used by eligible families to lease privatelyowned rental units any where in the County. These units are situated as contained in Table 7-M.

Table 7-M reveals that 77% of all Section 8 certificates and vouchers are located in the two (2) major population centers of the County, Bloomsburg and Berwick. However, there are Section 8 families in 20 of the other 31 municipalities in the County.

TABLE 7-M

·			•			
MUNICIPALITY	0 BR	1 BR	2 BR	3 BR	4 BR	TOTAL
Benton Boro	0	5	2	٥	0	7
Benton Twp.	0	1	0	Q	0	1
Berwick Boro	2	50	60	34	2	148
Bloomsburg	1	46	30	34	2	87
Briar Creek Boro	0	0	1	2	0	3
Briar Creek Twp.	0	3	3	1	O	7
Catawissa Boro	0	3	3	1	0	7
Catawissa Twp.	0	0	0	1	0	1
Conyngham Twp.	0	1	, 1	0	0	2
Greenwood Twp.	0	1	· · 3	2	0	6
Hemlock Twp.	· 0	1	· 2	0	0	3
Locust Twp.	0	0	D,	1	D	1.
Madison Twp.	0	2	0	0	0 ·	2
Mifflin Twp.	0	2	· 2 ·	0	.0	4
Millville Boro	0	0	2	Ö	0	2
Montour Twp.	0	0	2	O	0	2
Mount Pleasant Twp.	0	0	1	0	0	1 ,
North Centre Twp.	0	0	1	0	0	• 1
Orange Twp.	0	0	1	1	Q	2
Pine Twp.	Ο.	2	1	0	0	3
South Centre Twp.	0	3	2	1	O	6
Scott Twp.	0	3 .	2	1	D	6
TOTALS	3	121	54	3	4	302

NUMBER OF SECTION 8 EXISTING HOUSING UNITS BY BEDROOM SIZE AND MUNICIPALITY IN COLUMBIA COUNTY

Source: Fair Housing Analysis for Columbia County, 1991.

In addition to the Section 8 Existing Program, the Housing Authority also administers two (2) conventional public housing complexes. One (1) of these is in Berwick, a fifty (50) unit elderly complex. The other is a twenty (20) unit family development in the Town of Bloomsburg. The Authority also received approval for 51 additional Section 8 Existing units (16 certificates and 10 vouchers) in the past two (2) years. There are also several subsidized housing developments in the County. These are located as follows:

Community	Project	Location	Туре	No. of <u>of Units</u>
Berwick	Redwood	Birch & Poplar	Elderly	86
Bloomsburg	Bloomsburg Towers	330 W. Third St.	Elderly	75
Catawissa	Allied Apt.	131 Main Street	Family	65
Catawissa	Hillside Village	E Main Street	Family	50
Mifflinville	e de la companya de l		Family.	10
Millville	Columbia Village	Center Street	Elderly	45
Bloomsburg	Bousing Authority		Pamily	20
Berwick	Housing Authority	· .	Elderly	<u>50</u> 406

Both Housing Authority public housing complexes and the above subsidized housing projects are located on Map 7-1.

In terms of Fair Housing, the Columbia County Redevelopment Authority completed a Fair Housing Analysis in accordance with the directives of the Pennsylvania Department of Community Affairs and in response to the requirements of the Housing and Community Development Act of 1974. The purpose of the Fair Housing Analysis was to provide a comprehensive review of the County's housing market and to evaluate any impediments to fair housing choice.

This study concluded that issues of Fair Housing in the County result from reasons of economics, not discrimination. Further, several agencies indicated that the County is lacking in terms of the number of rental units available. It should be noted that this situation primarily affects elderly residents on fixed income, lower income, female headed households and other families or individuals that would be considered "at risk."

A second concern in the lack of a Voluntary Affirmative Marketing Agreement (VAMA) between HUD and the Board of Realtors. This Board, which covers a four (4) County area, has however adopted an Equal Opportunity Code and is in the process of developing a Voluntary Affirmative Marketing Agreement.

Lastly, there is some concern regarding the adequacy of regulatory documents on the local level. Title VIII of the Civil Rights Act of 1968 and the Fair Housing Amendments Act of 1988 have spelled out minimum standards that are acceptable in the area of fair housing. Although there have been no violations of this legislation in the County, a lack of awareness of details of the legislation requirements may lead to a perception of non-compliance with the intent of the legislation.





7.9 <u>Housing Demand</u>

The total potential housing demand for Columbia County must be derived within a defined market area. A housing market area for any part of the County can be defined as that geographic area which embraces all factors that might influence or affect the marketability of housing on a specific site in the County. Any growth to be experienced on or of benefit to this site would originate in the selected market area. This area must encompass all possible sources of growth having a potential impact. Such an area might include one (1) or several counties.

An attempt was made to survey Columbia County realtors. However, no response was received. Therefore, through a multiple listing service, an inventory of all residential properties sold between January, 1990 and June, 1993 was compiled. This inventory was broken down by each municipality in Columbia County. Table 7-N summarizes by municipality the average sale price, time on the market, and the number of bedrooms the total number of homes sold in each municipality during the 3.5 year period. Table 7-0 provides the same summary as referenced above, but for multi-unit housing.

According to the Central Susquehanna Valley Board of Realtors - Multiple Listing Service, Berwick Borough has had the highest single-unit housing demand over the past 2.5 years. Approximately 52 housing units have been sold each year. However, the units sold within Berwick have an average sales price of only \$52,945. The sale of single housing units within the Borough of Berwick is relatively slow. The average market time is 178 days.

The Town of Bloomsburg and Scott Township are a distant second and third place, averaging nearly 40 and 23 units per year respectively. Within the Town of Bloomsburg, the average sales price is \$69,608 compared to \$98,827 for Scott Township. Interestingly, the higher priced units in Scott Township sell faster than those within the Town of Bloomsburg.

In terms of multiple-unit housing only nine (9) municipalities were listed as having multiple-unit housing facilities for sale. Overall, Berwick Borough was the leader in terms of the number of units sold. These units, however, sell for a relatively low sale price of \$48,384.

South Centre Township (15) and the Town of Bloomsburg (12) each had a significant amount of multiple-unit housing units sold. The average sale price of multi-unit housing within the Town of Bloomsburg and South Centre Township were significantly higher, \$73,997 and \$77,500 respectively.

SINGLE-FAMILY HOUSING DEMAND IN COLUMBIA COUNTY,

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1991 - 1993

Municipality		Average No. Homes Sold Annually	Average Sales Price	Average Market Time (days)	Average No. Bedrooms
Beaver Two		1.8	50,995	100.4	3.3
Benton Boro		9.8	64,109	147.7	3
Benton Two		N/X	N/A	N/A	N/X
Berwick Boro		51.7	52,945	178.0	2.8
Bloomsburg Town		39.7	69,608	131.0	.3.1
Briar Creek Boro		2.0	45,711	174.5	2.6
Briar Creek Twp		10	75,053	182.3	2.8
Catawissa Boro		11	62,976	114.1	3.2
Catawissa Twp		N/A	N/A	N/A	N/A
Centralia Bóro		No Sales	\ - -		
Cleveland Twp		3.5	80,708	250.7	3.4
Conyngham Twp		2.0	85,900	123.0	3
Fishing Creek Twp	· ·	2.7	61,216	136.5	2.1
Franklin Twp		2.5	117,734	272.3	4
Greenwood Twp		7.0	74,518	192.5	3.2
Hemlock Twp	• .	5.7	66,711	135.6	. 2.5
Jackson Twp	•	4.0	75,625	91.2	2.2
Locust Twp		2.2	70,166	158.7	3.2
Madison Twp		4.2	111,983	156.5	3.2
Main Twp		5.5	95,224	172.2	··· 2.8
Mifflin Twp		7.8	79,474	101.8	2.8
Millville Boro	· · · ·	4.5	59,250	121.1	3.2
Montour Twp	· · · · ·	4.3	61,408	82.5	3.3
Mt. Pleasant Twp	•	4.8	87,348	125.7	3
North Centre Twp	· · · · · ·	5.0	77,891	93.6	• 3
Orange Twp	•	6.0	91,869	116.1	· 3.0
Orangeville Boro		4.0	60,208	137.6	2.9
Pine Twp		4.6	80,922	142.0	. 3.7
Roaring Creak Twp		2.2	76,556	228.0	2.7
Scott Twp	•	22.5	98,827	119.7	3.2
South Centre Twp		8-2	65,751	158.7	3
Stillwater Boro	<i>~</i> •	8.0	80,691	106.5	2.6
Sugarloaf Twp	· · ·	2.3	53,093	112.3	2.7

Source: Columbia County Office of Planning and Development.

TABLE 7-0

MULTI-FAMILY HOUSING DEMAND, 1991 - 1993

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"Municipality"	Average No. Units	Average Cost Per	Average Market Time	Average No.
	Sold Per Year	Home Per Year	Per Year in (days)	of Bedrooms
Benton Boro Berwick Boro Bloomsburg Town Catawissa Boro Millville Boro Orangeville Boro Roaring Creek Township Scott Township South Centre	1 16 11.7 2.6 1 1 2 2 2 15	56,500 48,384 73,997 46,825 45,000 53,750 46,500 229,444 77,500	238.5 172.3 128.3 140.6 71.0 98.5 139.0 164.8 224.5	3.5 3.5 3 3 3.5 4 3.6 3

Source: Columbia County Office of Planning and Development.

7.10 Housing Needs Assessment

In general, it appears that the current housing needs of Columbia County residents have been met. Nearly 25,600 housing units, of which 21,717 are single family detached, mobile homes, or one-unit attached units, provide housing for the majority of the County's residents. Approximately 3,881 multi-family units provide an alternative living style for smaller or lower income families in single person households. In addition, nearly 406 subsidized housing units provide shelter to elderly and lower-income families.

According to the results from the Municipal Officials Survey, the respondents indicated that they would prefer to see either multi-family or single-family residential development in the future. Of the 36 responses, 36% indicated a preference for conventional housing. Another 36% indicated that multi-family residential units should be encouraged. Furthermore, only 36% of all respondents believe there to be adequate housing for all persons of different socio-economic backgrounds.

Two (2) apparent housing "needs" exist within Columbia County. The first is the need for a housing assistance program, designed to provide financial assistance for low income families to enable them to undertake home renovations and maintenance projects. Such a project could be directed towards improving older homes throughout the County, where years of deferred maintenance has begun to cause deterioration. Funding for this type of initiative could be sought from state and federal sources, including the PA Housing Finance Agency, the Farmers Home Administration, the Pa Department of Community Affairs (Housing Assistance Grant Programs and the Community Development Block Grant Program) and the Department of Housing and Urban Development (HUD).

The second housing "need" is the lack of affordable rental housing within the County. This deficiency primarily affects elderly residents on fixed income, lower income families, female headed households, and other families and individuals that need such housing.

In terms of future housing it is estimated that an additional 3,475 housing units will be required throughout the County, by the year 2010. It is anticipated that the most significant development will occur in and around the Town of Bloomsburg, Briar Creek, Scott and North Centre Townships.

7.11 Summary of Findings and Conclusions

Columbia County, according to the 1990 census, has a total of 25,598 housing units, an increase of 1,709 units over the 1980 figure. However, housing growth from 1980 to 1990 decreased significantly from the previous decade.

Nearly 68.0% of the total housing units in Columbia County are owner-occupied. Just over 24.0% are renter occupied and the remaining units are seasonal or vacant.

Also of note is the percentage of mobile homes within the County. While the County average is 13.6%, the municipal figures range from a high of 51.9% (Briar Creek Borough) to a low of 3.5% (Millville Borough).

Overcrowded conditions for a housing unit is specified by the unit having 1.01 or more persons per room. Of the County's listed 364 overcrowded units, a majority are found within the County's two (2) most populated areas: Berwick (47) and Bloomsburg (122).

An indication of the degree of housing quality is the lack of complete plumbing and/or kitchen facilities. In the County, 1.1% of the dwellings lack complete kitchen facilities and only 0.8% lack complete plumbing facilities. As per the 1990 Census, 53.0% of the County's housing units utilize public or private water systems, 42.1% are served by public sewers, and 45.1% of the units are heated by fuel oil.

In terms of housing costs, monthly mortgage costs range from a high of \$643.00 in Scott Township to a low of \$458.00 in Conyngham Township. In relation to housing costs, Berwick Borough experienced the highest demand for housing averaging 52 sales per year for the last 2.5 years at an average sale price of \$52,945.

Where affordable housing for low and moderate income families cannot be found, the Housing Authority of Columbia County provides Section 8 certificates and vouchers. In addition, the County Housing Authority administers two (2) conventional public housing complexes which includes a twenty (20) unit complex for low and moderate income families in Bloomsburg and a fifty (50) unit complex for low and moderate income elderly in Berwick.

A Fair Housing Analysis was completed by the Columbia County Redevelopment Authority during 1991. This study concluded that issues of Fair Housing resulted from economics, not discrimination. The only major problem cited is the lack of affordable rental housing in the County.

8. COMMUNITY FACILITIES AND SERVICES

CHAPTER 8

COMMUNITY FACILITIES AND SERVICES ANALYSIS

8.1 <u>Introduction</u>

An important ingredient in the attraction of any community is its provision and location of community facilities and services. Columbia County as a public entity owns and maintains County bridges, but provides no utility or other infrastructure services.

Community facilities, including utilities such as electric power, telephone, natural gas, radio, and television services are provided by private utility companies regulated by the Pennsylvania Public Utility Commission (PUC). Centralized water supply and sewage collection/treatment systems are provided only in a number of municipalities within the County. Centralized public water supply and sewage collection/treatment systems are owned and maintained by either municipal government or a municipal authority. Whereas, centralized private water supply and sewage collection/treatment systems are typically owned and maintained by a private homeowners association or a private entity.

In general, centralized public water supply and sewage collection/treatment systems service areas are coincident with the more densely populated Columbia County Boroughs and adjacent lands of adjoining Townships. Outside of these areas, most residences, commercial operations, institutions, and industries rely upon on-lot wells and sewage systems or centralized private water supply and/or sewage collection/ treatment systems.

Community services consist of various activities required for the education, health and protection of Columbia County residents. Community services include facilities and services for protection, such as police and fire departments; recreation, such as parks and clubs; and other public services available to residents of the County.

This Chapter provides a description of the community facilities and services that exist and are provided to the residents of Columbia County. When development throughout the County induces population growth, there will be an increased demand for these community facilities and services. 8.2 <u>Water Supply Systems</u>

8.2.1 Community Water Systems

Community water systems are defined by the U.S. Safe Drinking Water Act and Title 25, Chapter 109 of the Pennsylvania Code as "systems that have at least 15 service connections or regularly serve at least 25 year round residents." Currently, there are seven (7) municipal community water systems and twenty-one (21) non-municipal systems operating in Columbia County. The location and service area of these systems are illustrated on Map 8-1.

Table 8-A provides information detailing the population served, the number and category of service connections and water usage of municipal and community water supply systems. Service connections are categorized by the Pennsylvania Bureau of Water Supply and Community Health as to include such uses as domestic, commercial, industrial, and institutional. Domestic uses include residential uses; commercial includes such facilities as shopping centers, hotels, motels, office buildings and other business uses; industrial uses include manufacturing, distribution, utilities and other similar uses; and, institutional uses consist of hospitals, schools, nursing homes, day care centers, and government buildings.

8.2.2 <u>Non-Community Water Supply Systems</u>

Non-community water supply systems are defined by the U.S. Safe Drinking Water Act and Title 25, Chapter 109 of the Pennsylvania Code as "systems that serve at least 25 of the same persons over six (6) months per year." Such systems include schools and other facilities not operating year-round. Schools and other facilities not served by the community water supply systems listed in Table 8-A, have their own on-site wells for water supply. These systems must also comply with the Safe Drinking Water Act and Title 25, Chapter 109 of the Pennsylvania Code regarding sampling and reporting requirements to ensure that water quality meets regulatory limits.

8.2.3 <u>Private Groundwater Supplies</u>

Approximately 47% of the residential dwellings, farms, commercial operations, institutions and industries in Columbia County utilize on-site wells for their potable water supply. This reliance on groundwater will play an important role on the number and location of new housing units and new commercial, institutional, and industrial buildings within the County.



As outlined in Chapter 5, the quantity and quality of groundwater is a function of the underlying geologic formation and its associated aquifer. It was determined in Chapter 5 that all geological formations underlying the County would be able to provide water yields capable of sustaining both domestic and non-domestic-uses.

TABLE 8-A

COLUMBIA COUNTY

MUNICIPAL AND COMMUNITY WATER SUPPLY SYSTEMS

Municipal Systems

Name of System	Population Served	Domestic	- Number of Service Connections Commercial Industrial Institutional		Other	Usage in gallons - Total Avg./Da		
Benton Borough	1,100	360	22	4	12	N/A	36,000,000	100,000
Berwick	22,275	N/A	N/A	N/A	N/A	N/A	768,000,000	2,104,109
Bloomsburg	21,500	3,057	338	26	25	165	1,026,214,000	2,803,863
Catawissa	1,683	547	56	8	N/A	3	65,528,000	179,000
Millville	969	227	42	2	11	3	33,215,510	90,753
Mifflin	407	400	6	N/A	1	N/A	60,225,000	165,000
Orangeville	485	143	N/A	1	1	5	7,766,158	21,277

Community Systems

Name of System	Population Served	Domestic	- Number of Commercial	Service Conne Industrial	octions Institutional	Other	Usage in c Total	allons Avg./Day
Country Terrace Estates	N/A	38	N/A	N/A	N/A	N/A	6,852,400	18,722
Dam Management Corp	111	111	N/A	N/A	N/A	N/A	4,895,031	13,411
Mrs. R.G. Smith	· 60	25	N/A	N/A	N/A	N/A	3,650,000	11,000
Brian Creek Manor	90	30	N/A	N/A	, N/А	N/A	3,650,000	10,000
Heritage Hill- side Estates	N/A	40	N/A	N/A	N/A	N/A	4,893,000	13,368
Boone Nursing Home	N/A	N/A	N/A	, N/A	1	N/A	898,580	2,561
Hellers Mobile- Home Park	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Klingerman Nursing Home	200	N/A	N/A	N/A	N/A	N/A	4,075,620	11,166
Village Green Mobilenome Park	29	20	N/A	N/A	N/A	N/A	Not metered	N/A
Park Rd. MHP	70	28	N/A	N/A	N/A	N/A	· N/A	N/A
Mt. View Mobilehome Park	N/A	36	N/A	N/A	N/A	N/A	N/A	N/A
Zeisloft Construction Co	170	170	N/A	N/A	N/A	N/A	9,152,250	25,075
Dam Management Corp.	170	170	N/A	N/A	N/A	N/A	14,290,490	39,152
Scenic Knolls Water Co.	125	50	N/A	N/A	N/A	N/A	5,000,135	13,699
Wonderview Water Co.	360	124	N/A	N/A	N/A	N/A	11,350,000	31,095
Ray T. Hock	31	15	N/A	N/A	N/A	N/A	1,025,270	2,805

URCE: Pa Department of Environmental Resources, Bureau of Water Supply and Community Health - 1992 Annual Water Supply Reports.

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8.3.1 <u>Municipal Sewage Collection/Treatment Systems</u>

There are four (4) municipal centralized sewage collection/treatment systems currently operating in Columbia County. These systems are inventoried in Table 8-B, including information concerning types of treatment plants, design capacity, reserve capacity, and average daily flow. Table 8-B also lists the design capacity and reserve capacity for each system and its average daily flow. In addition, the service areas of each of these systems have been delineated on Map 8-2. There are six (6) other systems under development: namely, portions of Montour Township, Hemlock Township and Locust Township and Orangeville, Benton and Briar Creek Boroughs.

TABLE 8-B

MUNICIPAL SEWER SYSTEMS DESCRIPTION AND OPERATING CHARACTERISTICS

SERVICE AREA	TYPE OF PLANT	DESIGN CAPACITY (MGD)	RESERVE CAPACITY (MGD)	Average daily • Flow (gpd)
Berwick Borough	Primary Settling	3,660	1.700 ·	1,760,000
Bloomsburg Town	Contact Stabilization	4.290	2,090	2,179,000
Catawissa Borough	Extended Aeration	0,200	0.095	105,000
Millville Borough	Aeration Settling	0.140	0.030	130;000

SOURCE: Pa Department of Environmental Resources, Title 25, Chapter 94 Municipal Wasteload Management Reports - 1992.

8.3.2 <u>On-Site Sewage Systems</u>

Approximately 58% of the residential dwellings, farms, commercial operations, institutions and industries in Columbia County utilize on-site sewage systems. These systems are generally septic tanks with tile drain fields, although septic tanks without drain fields, such as cesspools and privies, are probably still in use.

A septic tank, in effect, treats the domestic sewage through bacteriological action within the tank, and the treated wastewater effluent flows out of the tank into a set of underground perforated pipes where it is sprayed on to a drain field. The successful operation of the system depends on the ability of the wastewater to flow from the drain field into the ground. Therefore, the siting and installation of on-site sewage systems is dependent on the "percolation rate" of water into the soil, that is, the rate at which water will flow into soil underlying and surrounding the drain field. The system is also dependent upon the depth to the water table or bedrock and other variables.



The installation and operation of on-site sewage systems is overseen by the municipal Sewage Enforcement Officer (SEO). SEO's, trained and licensed by the Pennsylvania Department of Environmental Resources, conduct or witness the "Soil Deep Probe" and "Percolation Tests", on the basis of which, the SEO determines what type, if any, on-site sewage system can be installed.

8.3.3 <u>Sewage Sludge and Septage</u>

Under Pennsylvania Act 101 of 1988, sewage sludge and septage fall within the municipal solid waste planning responsibility of each respective Pennsylvania County. Thus, Columbia County has developed a county-wide solid waste management plan which was approved by the Pennsylvania Department of Environmental Resources in April, 1991.

Sewage sludge generated within Columbia County is created by both publicly and privately operated sewage treatment plants.

8.4 <u>Miscellaneous Utility Services</u>

8.4.1 <u>Electric Power Service</u>

The supply and distribution of electric power in Columbia County is through the Pennsylvania Power and Light Company (PP&L). This privately owned public utility company operates throughout a large multi-county area in Central Pennsylvania under the supervision of the Public Utilities Commission of the Commonwealth of Pennsylvania. Underground service lines should not be confused with transmission and distribution lines which are commonly found above ground.

Currently, PP&L has established a policy to provide local service in new areas by means of underground service lines. It has been estimated by PP&L that it has sufficient capacity to handle additional electrical loads in Columbia County through the year 2005.

8.4.2 <u>Natural Gas Service</u>

The Pennsylvania Gas and Water Company (PG&W) is the only supplier of natural gas in Columbia County. Gas comes from the large 23" inch diameter transmission line of the Transcontinental Gas Pipe Line Corporation that crosses the northern tip of the County. PG&W distributes gas from the above referenced transmission line through a pipe line connected at the Pennsdale Delivery Point at Muncy. Map 8-3 delineates the PG&W service areas as well as the major gas transmission and distribution lines. Columbia County is in the Southern Operating Area of PG&W's The PG&W service territory includes service territory. the Town of Bloomsburg, Berwick and Briar Creek Boroughs, Hemlock Township, Montour Township, Scott Township, South Centre Township, Briar Creek Township, Scott and Mifflin Township. Natural gas service is provided to 6,000 residential, 600 commercial, and 12 industrial accounts throughout Columbia County. Nearly 95% of these accounts are in the Town of Bloomsburg and the Borough of Berwick.

Currently, it is the policy of PG&W to provide it's above referenced service area to extend lines into new areas where it is economically feasible. In addition, it appears as though PG&W has sufficient volume to supply its service area over the next 20 years.

8.4.3 <u>Telephone Service</u>

Telephone service is provided by two (2) companies. These include Bell Telephone Company of Pennsylvania and the Commonwealth Telephone Company of Pennsylvania. The service area of each company has been delineated on Map 8-4.

The Bell Telephone Company of Pennsylvania provides service to the main urbanized strip along the Susquehanna River including Bloomsburg, Berwick, Catawissa and satellite communities such as Millville, and Centralia Borough as well as, a major portion of the rural areas of the County.

The Commonwealth Telephone Company of Pennsylvania services two (2) separate areas of the County. One area comprises Benton and Orangeville Boroughs; Benton, Fishing Creek, Orange and Sugarloaf Townships and a portion of Jackson Township. The second area, includes the eastern portion of Beaver Township.

Telephone service is available to every portion of the County for new and expansion of existing development.





8.4.4 <u>Radio Stations</u>

Currently, there are five (5) radio stations servicing Columbia County. These stations include WSQV AM 1280, WHLM FM 106.5, WKAB FM 103.5, WCNR AM 930, and WJMW AM 550.

Station WSQV AM 1280 is located in Berwick and broadcasts to all of Columbia County at 1000 watts daily. The station provides local news, weather, sports and public service programs.

Station WHLM FM 106.5 is located in Bloomsburg and broadcasts to all of Columbia County at between 32,500 and 50,000 watts daily. The station provides local news, weather, sports and public service programs. Special services of the station include United Press Inter-national News Releases.

Station WKAB FM 103.5 is located in Berwick and broadcasts to all of Columbia County at 3000 watts daily. The station provides local news, weather, sports and public service programs. Special services of the station include the Satellite News Network Releases.

Station WCNR AM 930 is located in Bloomsburg and broadcasts to all of Columbia County at 1000 watts daily. The station provides local news, weather, sports and public service programs. Special services of the station include Associated Press News Releases and National Weather Service Reports.

Station WJMW AM 550 is located in Bloomsburg and broadcasts to all of Columbia County at 1000 watts daily. The station provides local news, weather, sports and public service programs. Special services of the station include United Press International News Releases.

8.4.5 <u>Television</u>

In addition to individual antenna reception from Scranton and Wilkes-Barre, Columbia County residents can subscribe to one of two cable television companies operating locally. These cable television companies include Service Electric Cable TV, Inc. and Cable TV Co.. The service area of each cable television company has been delineated on Map 8-5. Service Electric Cable TV, Inc., service is located predominantly south of I-80 and Cable TV Company's service area is located primarily north and northeast of I-80. Cost or remote geographic location may preclude service to certain areas of Columbia County.



8.4.6 <u>Flood Control Devices</u>

There are two (2) county-owned flood control devices that exist within Columbia County. These include the Briar Creek Lake Park "Wet Dam" and the Glenbrook "Dry Dam." The Briar Creek "Wet Dam" is 37.5 feet high and 1,700 feet wide. This dam is composed of 161,900 cubic yards of fill and was constructed for flood control purposes. The Glenbrook "Dry Dam" was also constructed for flood control purposes.

8.5 Solid Waste Management

A wide variety of solid waste is generated within the boundaries of Columbia County, including residential, commercial, and other types of municipal solid wastes: industrial and agricultural residues; and sewage sludge and septage. Small amounts of hazardous, infectious, or other types of toxic materials may also be generated by particular industries or institutions.

The municipalities in the County are responsible under the Solid Waste Management Act of 1980 (Act 97) only for ensuring the proper collection, storage, processing, transportation, and disposal of household, commercial and other types of municipal wastes. Industrial and agricultural residues, and all other forms of toxic waste are regulated by state and federal government agencies. In this section, the primary emphasis will be placed on municipal solid waste, but mention will be made of the amounts of other waste generated within the County, since County and municipal officials should be aware of potential problems from the storage, handling, and disposal of these other wastes.

8.5.1 Columbia County Solid Waste Management Plan

Pennsylvania Act 101 of 1988 required each county in the Commonwealth to prepare a plan for municipal solid waste management. The Columbia County <u>Waste Management Plan</u> (1990) was prepared utilizing an interactive citizen participation effort. The plan carefully considered the solid waste disposal arrangements which are contractually assured through long term disposal contracts.

The emphasis of the Plan is non-interference in the private waste hauling system which includes two existing and one future transfer station and over a dozen haulers. Storage and collection have remained the responsibility of the municipalities which may select subscription, contract or municipal collection.

8.5.2 Waste Generation and Collection

The Pennsylvania DER, under Act 101, defines municipal waste as:

"Any garbage, refuse, industrial, lunch room or office waste and other material including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities and any sludge not meeting the definition of residual or hazardous waste from a municipal, commercial, or institutional water supply treatment plant, wastewater treatment plant, or air pollution control facility."

According to the 1990 Columbia County Solid Waste Management Plan, it was estimated that 1,123 tons of sewage sludge, 989 tons of septage, 81 tons of of infectious/chemotherapeutic, 12,170 tons construction/ demolition, and 64,648 tons of residual waste was generated in 1988. Further, according to the municipal waste haulers that service Columbia County residential, commercial, 30,970.5 tons of and institutional waste was disposed of during 1992.

According to the Columbia County Annual County Planning Progress Report for 1992 it is estimated, however, that 50,562 tons of MSW will be disposed in 1993 an increase of over 19,591.5 tons or 36.7%.

8.5.3 <u>Recycling</u>

Several municipalities operate or are developing their own recycling programs. Recycling is the separation, collection, and recovery for sale or reuse of materials that otherwise would become municipal waste. Recycling accomplishes at least five (5) vital functions: (1) protects the environment, (2) saves landfill space, (3) avoids the cost of disposal, (4) provides revenues from the sale of the materials, and (5) saves raw materials and fuel used in the production of materials. Nearly everything in the residential and commercial waste stream is recyclable, including paper, cardboard, glass, metals, wood, rags and plastic. Food and yard waste and other organic waste can be compacted to produce a useful humus.

Recycling has long been practiced and is a normal activity in most industries with regard to metal, wood, and other scraps and rejects from industrial processes, as well as solvents and whatever other materials can be economically reused or refurbished. Recycling was an essential part of the civilian effort during World Wars I and II, and since the energy crisis and environmental reawakening of the late 1970's and early 1980's has again become an essential activity. The high and increasing cost of trash disposal has made recycling a very economic pursuit.

Act 101, effective September 26, 1988, established a goal of recycling at least 25% of all municipal waste and source-separated recyclable materials by 1997, and required all municipalities above 5,000 in population to develop a source separation and collection program for recyclable materials by September 26, 1991. Grants were available from PaDER to municipalities for development and implementation of recycling programs and for demonstrated performance of such programs; and to counties. for hiring of recycling coordinators. The grants are supported by a recycling fee levied per ton on the municipal solid waste delivered to processing and disposal facilities. Recycling of at least three (3) materials were to be incorporated into local programs, the materials were to be selected from the following list:

o :	clear glass	· 0	high-grade offic	e paper
0	colored glass	ο	newsprint	·
0	aluminum	o	corrugated paper	• .
Ο.	steel and	0	plastics.	
	bimetallic cans		_	. •

Leaf waste is also prohibited from disposal and must be separated from other MSW for composting. Commercial firms, municipal offices, and institutions are mandated to separate high-grade office paper, aluminum, corrugated paper, and leaf waste for recycling or composting, as appropriate.

Several municipalities in Columbia County participate in recycling activities, however, only two are mandated to recycle. A total of nine municipalities (Beaver, Fishing Creek, Orange and Scott Townships; Benton, Berwick, Catawissa, Millville and Orangeville Boroughs, and the Town of Bloomsburg) indicated that they recycled muni-cipal solid waste (MSW) during 1992. It was reported that 30,970.5 tons of MSW was generated in 1992 and that approximately 5,294 tons of MSW was recycled for the year, thus producing a county-wide recycling rate of 17.0 percent.

8.5.3.1 <u>Borough of Berwick</u> - According to the 1992 Municipal Recycling Report, the Borough of Berwick generated a total of 8,781 tons of MSW and recycled nearly 915 tons, thus giving a recycling rate of 10.4%. The Borough recycles a wide variety of materials including glass, aluminum, steel, newsprint, corrugated cardboard, mixed plastic, and other commingled materials. As mandated by state law the materials are collected at curbside. The Borough of Berwick does not operate a used oil recycling program or a Household Hazardous Waste collection program, however, it is anticipated that a household hazardous waste collection program will be implemented in the future. The Borough also operates a municipal yard waste composting program.

8.5.3.2 <u>Town of Bloomsburg</u> - During 1992 the Town of Bloomsburg generated 9,951 tons of MSW while recycling 2,856 tons, when calculated this gives a recycling rate of 28.7%. With a population over 10,000, Bloomsburg is also required to have the recyclable materials to be picked up at curbside. The Town of Bloomsburg recycles clear, green, and brown glass; aluminum and steel cans; office, news, and corrugated paper; PET plastic; and yard waste.

The Town of Bloomsburg does not operate a Household Hazardous Waste (HHW) Collection Program nor a used oil collection program. Town officials do not anticipate operating a HHW collection program in the near future.

8.5.3.3 <u>Millville Borough</u> - Heaps Disposal operates a voluntary curbside and drop-off program within Millville Borough. The Borough is currently in the process of purchasing plastic recycling containers for individual households.

According to Mr. Heaps of Heaps Disposal the Borough recycled 14 tons of clear glass, 4.5 tons of colored glass, 0.3 tons of aluminum, 9 tons of newsprint and 24 tons of corrugated paper.

8.5.3.4 <u>Fishing Creek Township</u> - The Township of Fishing Creek operates a voluntary drop-off recycling program.

According to the Fishing Creek Township Municipal Recycling Report the Township recycled 18.8 tons of clear, brown, and green glass; 6.2 tons of aluminum and steel/bi-metal cans; 26.3 tons of newsprint; 1.2 tons of corrugated paper; and 0.4 tons of PET plastic.

No further plans to expand recycling of other wastes are anticipated.

8.5.3.5 <u>Benton Borough</u> - The municipal waste hauler that services the Borough of Benton operates a per bag collection system as well as a traditional monthly fee system. Under either program the residents place the recyclables at curbside for collection. According to the Benton Borough Municipal Recycling Report the Borough recycled 128.2 tons of clear, brown, and green glass; 5.5 tons of aluminum; 12 tons of newsprint; and 256.9 tons of corrugated paper.

No further plan to expand the recycling program exist at this time.

8.5.3.6 <u>Catawissa Borough</u> - A municipal waste hauler that services the Borough of Catawissa offers a curbside recycling program is also offered. During 1992, 21.1 tons of mixed glass 10.6 tons of aluminum and bi-metal cans, 31.2 tons of newsprint, 1.1 tons of corrugated paper, and 2.9 tons of mixed plastics for a total of 66.9 tons.

No further plans to expand the existing recycling program exist at this time.

8.5.3.7 <u>Orangeville Borough & Orange Township</u> - A private recycler operates drop-off recycling program with facilities located in the Borough of Orangeville.

During 1992 a total of 14.9 tons of clear, green, and brown glass; 5.6 tons of aluminum, steel, and bi-metal cans; 23.9 tons of newsprint; 0.9 tons of corrugated paper; and 0.4 tons of PET plastic was recycled during 1992, for a total of 45.6 tons.

At this time no plans exist to offer a used oil recycling or a Household Hazardous Waste Collection Program.

8.5.3.8 <u>Scott Township</u> - The municipal waste hauler that services the Scott Township operates monthly fee waste collection system. In conjunction with this service a curbside recycling program is also offered. Scott Township offers a municipal leaf waste composting program as well.

During 1992 31.8 tons of mixed glass; 12.8 tons of aluminum, steel, and bi-metal cans; 63.1 tons of newsprint; and approximately 800 tons of yard waste was recycled.

No plans exist to upgrade the existing recycling program at this time.

8.5.3.9 <u>Beaver Township</u> - Recycling is provided by a centrally located drop off in the Township. This drop off facility is then serviced by one of the municipal waste haulers operating in the Township.

According to the Beaver Township Municipal Recycling Report, i Township recycled 8.9 tons of mixed glass, 1.0 ton of aluminum, 3. tons of steel/bimetallic cans, 2.2 tons of mixed plastics and 6.5 tons of mixed paper. In addition, the Township recycled a total of 3.9 tons of white goods such as refrigerators and freezers.

At this time the Township does not foresee any expansion of the recycling program in the near future.

8.5.4 <u>Disposal</u>

The Columbia County Waste Management Plan states that all municipal waste except waste generated in the Townships of Conyngham, Cleveland and Roaring Creek and Centralia Borough, and a few other waste categories are sent to the Lycoming County Landfill. Municipal waste generated in Conyngham Township and Centralia Borough will be sent to the Pine Grove Landfill in Schuylkill County. Similarly, Cleveland and Roaring Creek Townships are served by Pottsville Sanitation Services, Inc., and the Mountainview Reclamation Landfill located in Franklin County, Pennsylvania.

As of end-of-year 1992 Columbia County signed disposal contracts with the Lycoming County Landfill (DER permit #100963) for twentynine of the County's thirty-three (33) municipalities. Of the remaining four (4) municipalities, disposal contracts have bee signed with the Pine Grove Landfill (DER permit #101427) i. Schuylkill County for two municipalities (Conyngham Township and Centralia Borough) and with the Mountain View Reclamation Landfill (DER permit #101100) in Franklin County via the Pottsville Sanitation Services Transfer Station (DER permit #101431)(Cleveland and Roaring Creek Townships).

Private enterprise is encouraged by the County plan to construct a construction/demolition natural renovation landfill. However, the construction of a construction/demolition landfill has yet to begin. In the future the County is planning to issue a RFP for a private firm to construct such a facility. Should no satisfactory proposals be received the County will then consider siting and constructing such a facility.

It appears as though the existing solid waste management system adequately meets the needs of the County. However, it must be kept in mind that Act 101 established a goal of recycling at least 25% of all municipal waste and source-separated recyclable materials by 1997. Currently, the County as a whole recycled 17% of the MSW generated within the County.

A number of municipalities located in the County have expressed an interest in starting some sort of recycling program. It is anticipated the number of "operational" municipal recycling programs will grow as municipalities realize the economic and environmental benefits of recycling.

Further, it should be noted that the PaDER requirement of recycling at least three (3) materials may be changed. Currently, three (3) materials are to be selected from a list of eight (8) (as previously mentioned), in future years recycling of corrugated cardboard may not be applicable to the 25% state mandated goal, thus in effect reducing the overall 1992 County recycling rate to 9.6%.

8.6 Educational Facilities

The schools within Columbia County will be impacted by future regional development. Therefore, an analysis of baseline conditions which include the number of school personnel, the geographic location of the facility space and personnel, and the quality of the facilities to meet current needs, is essential in determining future County needs with respect to educational facilities.

Columbia County is divided into six (6) school districts: Benton Area, Berwick Area, Bloomsburg Area, Central Columbia Area, Millville Area, and Southern Columbia Area. The school districts are the same as they were at the time of the 1970 Columbia County Comprehensive Plan. The school district boundaries and location of each district's facilities are illustrated on Map 8-6.

Generally, the facilities are not distributed widely in each district and tend to be concentrated either in a centrally located Borough or in a centrally located "campus" in a rural setting. This trend toward consolidation and centralization has been underway since the preparation of the 1970 Comprehensive Plan. Table 8-C illustrates the public school enrollment by school district.

TABLE 8-C

·· · · ·		•	,	•			
	1985 to 1986	1986 to 1987	1987 to 1988	1988 to 1989	1989 to 1990	1990 to 1991	1991 to 1992
AREA VOCATIONAL - TECHNICAL SCHOOLS Columbia-Montour	634	637	• 595	[.] 546	548	548	582
INTERMEDIATE UNIT Central Susquehanna IV16	165	221	216	223	193	220	220
SCHOOL DISTRICTS Benton Area Berwick Area Bloomsburg Area Central Columbia Millville Area South Columbia Area	780 3,338 1,696 2,211 1,047 1,264	754 3,360 1,715 2,215 1,055 1,275	845 3,416 1,734 2,146 1,025 1,302	810 3,422 1,743 2,147 966 1,324	797 3,479 1,761 2,154 900 1,350	794 3,471 1,780 2,119 965 1,361	816 3,552 1,820 2,139 913 1,389
TOTAL COLUMBIA COUNTY Percent Elementary Percent Secondary	11,135 48.0% 52.0%	11,232 49.5% 50.5%	11,279 51.3% 48.7%	11,181 52.6% 47.4%	11,262 .54.2% 45.8%	11,258 54.5% 45.5%	11,411 54.38 45.78

PUBLIC SCHOOL ENROLLMENT BY DISTRICT

Source: Public Schools Summary of Enrollment, Pennsylvania Department of Education.


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8.6.1 Public Elementary and Secondary Schools

8.6.1.1 <u>Benton Area School District</u> - This district includes Benton and Stillwater Boroughs along with Benton, Fishing Creek, Jackson and Sugarloaf Townships. Kindergarten through sixth grade are housed in the Benton Elementary School while grades seven through twelve are housed at the Benton High School.

According to 1992 PA Department of Education data, the overall student enrollment of this district has increased slightly since 1985. The figures show a total public school enrollment for this district of 780 students during 1985/86 school year versus 815 students during the 1991/92 school year, an increase of 4.5%. A total student enrollment of 845 is projected for the 1993/94 school year.

Table 8-D summarizes the service characteristics of the Benton Area School District Schools.

TABLE 8-D

FACILITY	STUDENT	1991–1992	STUDENT/TEACHER	
	CAPACITY	Enrollment	RATIO	
Junior-Senior High	556	352	14.3 : 1	
Elementary School	475	463	14.3 : 1	

BENTON AREA SCHOOL DISTRICT

SOURCE: Benton Area School District.

8.6.1.2 <u>Berwick Area School District</u> - This district includes Berwick and Briar Creek Boroughs and Briar Creek Township, as well as, parts of Luzerne County. The Berwick Area School District currently contains four (4) elementary schools, one (1) junior high school, and one (1) senior high school. According to 1992 PA Department of Education data, the overall student enrollment of this district has increased slightly since 1985. The figures show a total public school enrollment for this district of 3,338 students during the 1985/86 school year versus 3,552 students during the 1992/93 school year, an increase of 6.4%.

Table 8-E summarizes the service characteristics of the Berwick Area School District schools.

TABLE 8-E

FACILITY	STUDENT	1991-1992	STUDENT/TEACHER
	CAPACITY	ENROLLMENT	RATIO
Berwick Senior High Berwick Middle School Salem Elementary Orange St. Elementary 14th St. Elementary Nescopeck Elementary Mulbury St. Elementary	+ + + + +	943 896 529 517 256 338 136	13.9:1 14.7:1 13.2:1 15.7:1 15.1:1 21.1:1 22.7:1

BERWICK AREA SCHOOL DISTRICT

* Information not available

SOURCE: Berwick Area School District.

8.6.1.3 <u>Bloomsburg Area School District</u> - The Bloomsburg Area School District is composed of the Town of Bloomsburg, and the Townships of Beaver, Hemlock, Main, Montour and Beaver Townships, and a portion of Luzerne County. The physical plant of the school district consists of five (5) structures - three (3) of which are in Bloomsburg and one (1) elementary building each in Montour and Beaver Townships.

The schools are organized on a K-5, 6-8, 9-12 system. The elementary schools are Bloomsburg Memorial, W.W. All of Evans Memorial, and Beaver/Main Elementary. these buildings presently hold kindergarten through 5th grade. The middle school, completed August 1988, holds 6th through 8th grade and is located in Bloomsburg. The senior high building, also situated in Bloomsburg, holds 9th through 12th grade. According to 1992 PA Department of Education data, the overall student enrollment of this district has increased slightly since 1985. The figures show a total public school enrollment for this district of 1,809 students during 1992/93 school year versus 1,696 students during the 1985/86 school year, an increase of 6.6%. A total student enrollment of 1,876 is projected for the 1993/94 school year.

Table 8-F summarizes the service characteristics of the Bloomsburg Area School District Schools.

TABLE 8-F

FACILITY	STUDENT CAPACITY	1992-1993 ENROLLMENT	STUDENT/TEACHER RATIO
Bloomsburg Senior High	709 ·	454	11.6:1
Bloomsburg Middle Sch.	750	455	15.7:1
Bloomsburg Memorial Elementary	825	500	15.8:1
W.W. Evans Memorial Elementary	420	220	13.2:1
Beaver Main Elementary	270	176	16.6:1

BLOOMSBURG AREA SCHOOL DISTRICT

SOURCE: Bloomsburg Area School District.

8.6.1.4 <u>Central Columbia School District</u> - The Central Columbia School District is composed of Scott, South Centre, Mifflin, Mount Pleasant, Orange and North Centre Township, as well as, Orangeville Borough. The total enrollment for this district for 1991 - 1992 was 2,139. The Central Columbia School District is composed of three (3) schools: a high school serving grades 9 through 12, a middle school serving grades 6 through 8, and a elementary school serving grades K through 5.

According to 1992 PA Department of Education data, the overall student enrollment of this district has decreased slightly since 1985. The figures show a total public school enrollment for this district of 2,211 students during 1985/86 school year versus 2,186 students during the 1992/93 school year, a decrease of only 1.1%. A total student enrollment of 2,179 is projected for the 1993/94 school year.

Table 8-G summarizes the service characteristics of the Central Columbia Area School District Schools.

TABLE 8-G

STUDENT 1992-1993 STUDENT/TEACHER FACILITY CAPACITY ENROLLMENT RATIO Central Columbia 934 586 18:1 High School Central Columbia 846 751 14:1 Middle School Central Columbia 1,098 849 19:1 Elementary School

CENTRAL COLUMBIA AREA SCHOOL DISTRICT

SOURCE: Central Columbia Area School District.

8.6.1.5 <u>Millville Area School District</u> - The Millville Area School District, in the northwest portion of the County, is composed of Millville Borough along with Greenwood, Madison, and Pine Townships. Primary and elementary school needs are served by two (2) elementary schools located in the District. All Kindergarten and first grades are housed in the Pine Elementary School located in Pine Township, approximately three (3) miles north of Millville, and second through sixth graders attend the Millville Elementary Center, situated immediately north of the Borough in Greenwood Township. Secondary education for District children (grades 7 - 12) is provided at the Millville Area High School, located at the northeast corner of Chestnut and Main Streets in the Borough. In 1959, the High School became the first school in the County to be accredited by the Middle States Association of Colleges and Secondary Schools.

According to 1990 PA Department of Education records, the overall enrollment of the District has decreased slightly since 1985. Their figures show a total public school enrollment for the District of 1,047 students during the 1985/86 school year and only 913 students in the 1991/92 school year. Since overall population in the service areas has increased 24.1% during the past decade, it appears that the 12.8% decrease in the District enrollment can be attributed to a reduction in family sizes (and the number school-aged children) and/or an increase in the population in the area over 18 years of age. A reduction in total enrollment should also mean a decrease in the number of students per class and a better ratio of teachers to students.

Table 8-H summarizes the service characteristics of the Millville Area School District Schools.

TABLE 8-H

FACILITY	STUDENT CAPACITY	1991-1992 ENROLLMENT	STUDENT/TEACHER RATIO
Fine Elementary Millville Elementary Millville Area High School	*	135 300 389	23:1 25:1 10:1

MILLVILLE AREA SCHOOL DISTRICT

* Information not available.

SOURCE: Millville Area School District.

8.6.1.6 <u>Southern Columbia Area School District</u> - The Southern Columbia Area School District encompasses an area of 109 square miles in the southwest portion of the county. This district is comprised of the Townships of Roaring Creek, Locust, Cleveland, Franklin and Catawissa; Ralpho Township of Northumberland County; and Catawissa Borough, Columbia County.

The Southern Columbia Area School District operates on a 56 acre site which encompasses the Junior-Senior High School (grades 7 - 12) and the Southern Columbia Elementary School (grades K - 6). This complex is located in Franklin Township. Both facilities are functional, well maintained, and expandable if future needs warrant.

According to 1992 PA Department of Education data, the overall student enrollment of this district has increased slightly since 1985. The figures show a total public school enrollment for this district of 1,391 students during 1991/92 school year versus 1,264 students during the 1985/86 school year, an increase of 10.0%.

Table 8-I summarizes the service characteristics of the Southern Columbia Area School District Schools.

TABLE 8-1

SOUTHERN COLUMBIA AREA SCHOOL DISTRICT

FACILITY	STUDENT CAPACITY	1992-1993 ENROLLMENT	STUDENT/TEACHER RATIO
Southern Columbia High School	914	615	14.6:1
Southern Columbia Elementary School	825	776	17.6:1

SOURCE: Southern Columbia Area School District.

8.6.2 Columbia-Montour Area Vocational Technical School

The Columbia-Montour Area Vocational Technical School began operation in 1969. Throughout the twenty-four (24) years of its existence the student body population has remained relatively steady. The enrollment for the 1991/92 school year was 582 students. The school provides training in the following fields:

o `	Auto Mechanics		o Electronics
Ó,	Health Occupations		o Food Preparation
0	Carpentry	• •	o Horticulture
0	Machine Shop	0	Plumbing/Heating
0	Electricity		o <u>Cosmetology</u>
o	-Data Processing	0	Marketing/DE
o ' '	Basic Foods		o Graphic Arts
o '	Drafting/Design	Ó.	Welding
o	Auto Body	. •	o Building Trades
• •			Maint.

8.6.3 Special Education

The Central Susquehanna Intermediate Unit (CSIU) #16 provides a variety of programs including special edu-cation. The CSIU offers more than 75 individual programs and services, including: Adult Education Programs, Auto Programs, At-Risk Services, Computer Services, Computer School of Excellence Cooperative Business Services, Special Education Instructional Programs, Professional Redevelopment Services, Preschool Program, Head Start Program, Disabled Children's Programs, Governor's Schools; Migrant Education Programs, Lead Teacher's Center, Pennsylvania Education Purchasing Program for Microcomputers, Information Technology Education for the Commonwealth, Instructional Support System of Pennsylvania, Project Success etc. The CSIU's 70-plus individual programs serve "students" of all ages more than 37,000 preschoolers, school-age adults in 1991 and 1992 within the Commonwealth of Pennsylvania.

The Central Susquehanna IU #16 had a total student enrollment of 220 for the 1991 - 1992 school year.

8.6.4 Higher Education

8.6.4.1 Post-Secondary Educational Opportunities - A broad selection of excellent post secondary educational schools are available relatively near Columbia County. There are at least ten (10) colleges and universities are easily accessible from Columbia County, that including Bloomsburg University, Lycoming College and Penn College in Williamsport, Lock Haven University in Bucknell University Lock Haven, in Lewisburg, Susquehanna University in Selinsgrove, Wilkes College and Kings College in Wilkes-Barre, and Penn State at Hazleton.

8.6.4.2 <u>Bloomsburg University</u> - Bloomsburg University began as an academy "to teach youth the elements of classical education" in 1839. The academy continued

with varied fortunes until 1856 when a charter was prepared and stock issued to reorganize it as the Bloomsburg Literary Institute. Institute Hall, later renamed Carver Hall after Henry Carver, an early principal, architect, and teacher, was erected in 1867. <u>Today, the gold-domed, red-brick building is the</u> university's landmark.

Largely through the efforts of J.P. Wickersham, superintendant of public instruction, the Bloomsburg Literary Institute officially became the Bloomsburg Literary Institute and State Normal School in 1869; it continued under this name and organization until 1916 when it was purchased by the Commonwealth of Pennsylvania and named Bloomsburg State Normal School.

The emphasis at the Normal School changed during the early 1920's from secondary and college-preparatory courses for specialized teachers to full-time teacher education. In May 1927, the institutional name was changed to Bloomsburg State Teachers College, and the school was authorized to grant the Bachelor of Science in Eduction for teachers in elementary and secondary schools.

Under the administration of President Francis B. Haas (1927 - 1939), great progress was made in the teacher education program, and a new degree program in business education was initiated. Upon the appointment of Dr. Haas as state superintendent of public instruction, Dr. Harvey A. Andruss, then dean of instruction and a former director of the Business Education Department, was was appointed president, a position he held until his retirement in 1969. During World War II, the U.S. Navy Training Program was conducted V-12 Officer on Bloomsburg campus. As a result, a campus building was renamed Navy Hall. In 1957, a division of special education was instituted, and today, Navy Hall still houses that program.

Major expansion in facilities, faculty, and student body followed. Full-time enrollment rose from 1,743 in 1960 to 6,400 undergraduates in 1988.

In 1960, the institution's name was changed to Bloomsburg State College. Authorization soon followed to grant baccalaureate degrees for liberal arts programs in humanities, social sciences, and natural sciences/ Graduate study, leading to the Master of mathematics. Education, also was inaugurated. In 1968, approval was received for the Master of Arts, in 1970 for the Master in 1976 for the Master of Business of Science, Administration, and in 1982 for the Master of Science in Nursing. A cooperative doctoral program in elementary

1982. Commonwealth legislation education began in enacted on July 1, 1983, established the State System of Higher Education, and Bloomsburg State College became Bloomsburg University of Pennsylvania. Bloomsburg's president, Dr. James H. McCormick, became the system's interim chancellor and later its first permanent Dr. Larry W. Jones, Bloomsburg's former chancellor. provost and vice president for academic affairs, served as the university's interim president until July 1985, when Dr. Harry Ausprich assumed the chief executive position.

Bloomsburg is a strong, multi-mission institution offering curricula in liberal arts, business, nursing, allied health sciences, and teacher education. Degree programs are offered at associate, baccalaureate, and master's levels in addition to a cooperative doctoral program.

Bloomsburg University of Pennsylvania is one of the fourteen state-owned universities that compose the Pennsylvania State System of Higher Education. In addition to 64 undergraduate degree programs and one associate degree program, Bloomsburg offers twenty master's degrees in select academic disciplines and a doctoral program in elementary education in cooperation with Indiana University of Pennsylvania. Bloomsburg University has more than 7,400 students and is organized as three colleges (Arts and Sciences, Business, and Professional Studies) and two schools (Graduate Studies) and Extended Programs).

The College of Arts and Sciences is comprised of nineteen (19) academic departments with the expressed intention of providing a quality liberal arts education. These curricula encourage broad exposure to knowledge, ideas, and intellectual process. The liberal arts philosophy places higher emphasis on general skills such as reading, writing, and critical analysis than on specific preparation for a particular career. Degree programs lead to a Bachelor of Science or a Bachelor of Arts, or both. The academic departments in Arts and Sciences include:

D Department of Art	
D Department of Biological and	d Allied Health Sciences
D Department of Chemistry	
D Department of Communication	Studies
D Department of Economics	
D Department of English	
D Department of Geography and	Earth Science
Department of History	

0	Department Athletics	of Health, Physical Education,	and
0	Department	of Languages and Cultures	·
o .	Department	of Mass Communications	
0	Department	of Mathematics and Computer Science	·
0	Department	of Music	
0	Department	of Philosophy	1
0	Department	of Physics	
0	Department	of Political Science	
0	Department	of Psychology	1
0	Department	of Sociology and Social Welfare	·

The College of Business is organized into five (5) departments: accounting, computer and information systems, finance and business law, marketing and management, and business education and office administration. It offers curricula in business administration with six (6) specializations and degree programs in computer and information science, business education with four (4) options for certification, and office administration.

The curriculum in business administration prepares students for beginning positions in business; computer and information science provides skills in applications systems and programming; the business education program leads to certification as a teacher of business subjects; and the curriculum in office systems prepares students for the administration and management of a business office.

The College of Business is comprised of the following five (5) academic departments:

o Department of Accounting

- o Department of Business Education and Office Administration
- o Department of Computer and Information Systems

o Department of Finance and Business Law

o Department of Marketing and Management

The College of Professional Studies offers programs for the preparation of teachers for early childhood centers and elementary schools, academic subjects in secondary schools, special education, communication disorders, and business education. The business education program is administered in departments of the College of Professional Studies.

The teacher education program at Bloomsburg University is committed to improving the field of education through a comprehensive program which recognizes its unique contribution to society, both as a reflection of that society and as an agent for the improvement of society. To meet this obligation, the programs draw upon the knowledge and understanding of general as well as professional education. It strives for a blend in preparing a person to fulfill a role in society as an informed, inquiring, and skilled professional.

More specifically, the teacher education programs provide:

 The basic academic preparation for persons to acquire a depth and breadth of knowledge in both general and specialized studies;

Basic training to insure mastery of the specific skills necessary for competent functioning as a professional;

An opportunity for further enrichment within the individual's area of professional competence through a regular program of speakers, seminars, and related activities;

- Human and physical resources necessary to assist in the educational development and growth of the community served by the university; and
 - The means for the advancement of knowledge through research in specific areas of education.

Bloomsburg University is committed to the preparation of teachers of the highest quality. In pursuit of that goal, the School of Education subscribes to and endorses the philosophic statement as developed by the American Association of Colleges for Teacher Education as a guide to the development and operation of all of its teacher education programs.

8.6.5 Licensed Private Academic Schools

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Eight (8) licensed private academic schools exist within Columbia County. Montessori Children House and Winnie the Pooh Daycare offer kindergarten classes while the remaining centers (Greenhouse Preschool, Kiddie Campus, Magic Carpet Preschool, Rainbow Hill School, St. Matthew Preschool and Wonder Years Preschool) offer nursery services only.

8.6.6 <u>Private Licensed and Registered Schools</u>

Two (2) private licensed and/or registered schools exist within Columbia County. A brief description of each follows:

- H & R Block Income Tax School, located in Berwick, offers the following courses: Basic Income Tax 101, 102 and 103; Advanced Income Tax 104 - 109; and Basic Income Tax 110.
- The Learning and Evaluation Center, located in Bloomsburg, offers a variety of courses including: Biology, Algebra, Math, Social Studies, English, World Cultures, American History, Geography, General Science and Health.

8.6.7 <u>Non-Public Parochial Schools</u>

A total of five (5) non-public elementary and secondary schools exist within Columbia County. They are as follows:

o Bloomsburg Christian School - Bloomsburg

- o Greenwood Friends School Millville
- o Heritage Christian Academy Berwick
- o Holy Family Consolidate Berwick
- o Saint Columbia School Bloomsburg

8.7 <u>Cultural Facilities</u>

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A community's wealth is not always measured simply by its tangible assets but includes those resources to which purely monetary value cannot be ascribed. Knowledge is included among those resources. Since books are the fountain from which knowledge springs, it is therefore reasonable to assume that libraries and other cultural facilities are essential to a community's sustained growth.

8.7.1. Libraries

At the present time Columbia County has eight (8) libraries and one (1) traveling library within its borders. These libraries consist of one (1) Academic Library, the Bloomsburg University Harvey A. Andruss Library; five (5) public libraries, the Bloomsburg, Berwick, and Orangeville Public Libraries, the Franklin and Effa Laubach Memorial Library in Benton, and the Columbia County Traveling Library; one (1) Law Library the Columbia County Law Library; and one (1) Special Library the Columbia County Historical Society Library.

At this time two of the libraries are planning expansion. They are as follows:

8.7.1.1	Blo	oomsbur	u Un	ivers	sity,	Harvey	A	And	russ
Library	- Ace	cording	r to	the	Progra	m for	New	Lib	rary
Building	seve	eral s	pace	plan	ns for	the	New	Lib	rary
Building	have	been d	levelo	pēd.	The r	revised	1993	pro	gram
is base	d on	the	fund	ing	level	appro	ved	by	the

Legislature, the Governor, and the Board of Governors of the State System of Higher Education. By the present plan the Commonwealth will provide 9.5 million for construction and 2 million for the design of a library building. Bloomsburg University, through a capital campaign, will endeavor to raise an additional 2.5 million for construction. The gross space funded is 120,000 sf with an anticipated minimum net assignable space of 95,000 sf.

The 1,219 study stations programmed for the 7,443 fulltime enrolled (FTE) students registered at the University during 1991-1992 and the 410 FTE faculty represent two and a half times the number of seats now available in the Library. The book capacity will increase to 401,000 volumes from present capacity of Anticipated growth of the student enrollment 275,000. to at least 10,000 FTE and anticipated growth of the collections to required by the 427,000 volumes Association of College and Research Library standards for Bloomsburg University's current programs and students necessitate careful planning that will allow for efficient additions of study seating and book stacks in the future.

8.7.1.2 <u>The Bloomsburg Public Library</u> - This library currently occupies a building that is nearly seventyfive (75) years old. Built in 1925, the facility is no longer large enough, nor modern enough to meet current library needs.

In September 1991, a consultant completed a study of the Bloomsburg Public Library's existing facility and future needs based on the current County population. The consultant concluded that the existing facility is approximately half the size of the recommended facility size. The American Library Association recommends a 12,000 square foot library (Bloomsburg Public Library is 6,000 square foot).

The library is seriously considering an expansion project, although no timeline has been adopted. Two (2) properties adjacent to the library on Market Street have been purchased for future expansion possibilities. An architect and building consultant are currently working on expansion plans. The new facility would be accessible to all and designed to take advantage of modern technology.

8.7.1.3 <u>Miscellaneous</u> - This category includes the six (6) remaining libraries within the County including: the Berwick and Orangeville Public Libraries, the Franklin and Effa Laubach Memorial Library in Benton, the Columbia County Traveling Library, the Columbia Law Library, and the Columbia County Historical Society Library. Each municipal library serves only it resident population. Further, no plans to expand these facilities exist at this time.

8.7.2 Columbia County Long Range Library Plans

The Columbia County Traveling Library was awarded a LSCA Title I Grant to study library service throughout the County and to provide recommendations as to how the existing service could be improved.

This study concluded that:

- Many areas of the County are unserved by a "home library".
 - There is a lack of local coordination and cooperation between the librarians in the school, academic and public libraries.
 - The existing library buildings are not adequate to serve the County in terms of size, collections or accessibility.
 - The Columbia County Traveling Library bookmobile schedule is inadequate to meet the needs of the rural population.
 - Local funding levels are inadequate for long range planning.
 - Due to lack of local organization, available state funding which could be used to develop library programming is being lost.
- Community awareness of library services in minimal.

The study recommended that a County library system be established. A two (2) stage approach was designed to act as guidelines if a County library system were to be enacted. The stages are as follows:

Stage One

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Establish a steering committee representing each library, the County Commissioners and the public. Their activities may include:

- o Begin comprehensive advertising of libraries and their services.
- o Establish priorities to be addressed by a County library system.
- o Outline sources of funding.
- o Determine the make-up of the County library board.
- o Notify the State Library of the determination to set up a County system.
 - Outline the basic organization of the system including appointment of those responsible for administration of funding.

Stage Two

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Once the basic organization of the system, if established and there is agreement on priorities, administration and costs, the next areas need to be addressed:

- Schedule and organize fund raising projects.
- Continue to educate the public concerning library services.
- Begin explaining the benefits of a system.
- o Involve the public in fund raising and planning sessions for the local libraries.
- o Contact the District Consultant for standards information.
 - Establish a contact person at the State Library. Arrange for a visit by State Library personnel to speck with committee members or other groups as deemed advantageous.
 - Strive for increased local funding from townships and school districts to support the funding from the County.

As indicated in the County Library Study, the existing library service in Columbia County is inadequate. However, if the plans to establish a County Library System are enacted, combined with the planned expansion of the Bloomsburg Public Library and Bloomsburg University's Library, the library service needs of Columbia County could be adequately addressed.

8.8 <u>Health Care Facilities</u>

Health care services are affected by the crowdedness of existing facilities and the increased demand for health care personnel. These services denote medical, surgical, other inpatient and one on-site emergency services. They are provided in hospitals and clinics.

Baseline conditions for these facilities include the number of health personnel, the geographical location of health personnel and facilities, and the bed capacity and utilization as well as the capability of existing health care services to meet current needs and future development requirements. Map 8-7 illustrates the location of Health Care Facilities within Columbia County.

8.8.1 <u>Bloomsburg Hospital</u>

The Bloomsburg Hospital is considered a non-profit general hospital. It serves all of Columbia County and a portion of Northumberland County.



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The Hospital currently has a complement of 125 beds and 435 employees. It presently has an adequate supply of beds to meet the patient demand. The average length of stay at this hospital is 5.4 days.

This hospital offers a variety of services including the following:

The Bloomsburg Hospital offers a variety of services including: emergency services, a poison control hot-line called POSIONDEX, Intensive Critical Care Unit, Progressive Care Unit, Pediatric Care, a Cardiac Rehabilitation Program - H.E.A.R.T.S., Pulmonary/Respiratory Therapy, Childbirth, Oncology, Diagnostic, Rehabilitative Laboratory, and Social Services.

8.8.2 <u>Berwick Hospital</u>

The Berwick Hospital is considered to be a voluntary non-profit general hospital and serves both Columbia and Luzerne Counties. The hospital has 129 beds and has an average length of stay of 11.0 days.

Emergency patient care includes dispensary and emergency medical care, as well as the services provided by an intensive care unit.

Numbered among the in-patient services are: general medicine, general surgery, obstetrical, radiology, pathology, pediatrics, intensive coronary care, dental care and ophthalmology.

Two Clinics, orthopedic, and tuberculosis, wherein an individual's private doctor who is on the Hospital's staff treats his patient within the confines of the hospital provide a degree of out-patient service.

8.8.3 <u>Geisinger Medical Center</u>

A wide range of specialized hospital and medical services are available at the Geisinger Medical Center located adjacent to the Borough of Danville in Montour County and approximately four miles from the Columbia County boundary.

Currently, there are no plans for substantial changes in employees or facilities at Geisinger Medical Center. However, additional outpatient facilities may later be added due to growth of the Geisinger Health Plan.

According to a spokesperson for Geisinger Health Care System, more than 6,500 persons were employed by the health care provider in early 1992; 3,944 at the Geisinger Medical Center in Danville and another 2,500+ at the hospital's numerous satellite facilities. Overall, the Geisinger Medical Center serves 2.7 million people in northeastern and northcentral Pennsylvania and has more than 483 physicians practicing in 61 clinical specialties.

8.8.4 Nursing Homes

At the present time there are six (6) nursing homes within the confines of Columbia County. These include the Char-Mund Nursing Home (currently closed) and Klingerman Nursing Center in Orangeville; the Millville Health Center and Boone Nursing in Millville, the Bloomsburg Health Care Center in Bloomsburg and the Berwick Village in Berwick.

Table 8-J illustrate the services characteristics of Columbia County Nursing Homes.

TABLE 8-J

COLUMBIA COUNTY NURSING HOMES

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NURSING HOMES	OF BEDS	OF EMPLOYEES	FOR PROFIT/VS. NON PROFIT
Berwick Retirement Village	120	120	Non Profit
Bloomsburg Health Care Center	154	145	For Profit
Boone Nursing Home	60	62	For Profit
Char-Mund Nursing Home	36	N/A	For Profit
Klingerman Nursing Home	120	105	For Profit
Millville Nursing Center	114	107	For Profit

SOURCE: Pa. Department of Health, State Health Data Center, Nursing Home Directory, Revised 3/10/92.

Overall, the level of medical and health care services available for County residents is excellent and should be satisfactory for years to come. A total of three (3) primary medical care facilities are available to residents of Columbia County including Bloomsburg Hospital in Bloomsburg, Berwick Hospital in Berwick, and the Geisinger Medical Center in Danville.

8.9 <u>Public Safety Services</u>

The primary impact of development on police and fire protection services is the requirement for new personnel and facilities to provide the necessary level of protection. Police and fire protection are public safety services provided to communities by Pennsylvania State Police, County Sheriffs Departments, municipal police and fire departments, and volunteer fire departments. Other emergency services are provided by local ambulance corps and the Public Safety Department of Columbia County (formerly known as the Emergency Management Agency and Emergency Communications).

Baseline conditions include the number of personnel and vehicles, the geographic location of these facilities, the available of additional personnel, and the capability of police, fire, and ambulance services to meet current needs and projected future requirements.

8.9.1 Fire Protection and Ambulance Service

Fire protection in Columbia County is provided by twenty-five (25) departments which consist of twentyseven (27) volunteer fire companies, each with its own station and located throughout the County. Company Service areas, or fire districts have been delineated by fire company agreements and are intended to provide adequate fire protection for all areas and are shown on Map 8-8. Fire district boundaries describe general areas of service for each company, however, there is mutual aid among companies in fighting fires. Table 8-L, lists the various fire departments, the number of personnel, and the equipment operated by each.

The twenty-five (25) volunteer fire departments dispersed throughout Columbia County are extremely well located to serve the projected County population as illustrated in Chapter 3.

Over the planning period, many of these companies will need to increase their personnel and to upgrade or expand their stations, their squads of vehicles and associated apparatus.

Fire fighter shortages can also be addressed through the use of paid-on-call fire fighters. The following State programs offer some funding assistance for fire protection and ambulance services:

- o Volunteer Fire Company, Ambulance Services, and Rescue Squad Assistance Program. Administrative Agency: Pennsylvania Emergency Management Agency.
 - Rural Community Fire Protection Program (RCFP). Administrative Agency: Bureau of Forestry, Department of Environmental Resources.

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- Volunteer Firemen's Relief Association and Paid Firemen's Pension Fund Allocations. Administrative Agency: Bureau of Police and Fire Audits, Department of the Auditor General.
- A total of eight (8) ambulance corps along with two (2) air ambulances operated by the Geisinger Medical Center, five (5) quick response squads, two (2) scuba teams and two (2) medic corps serve Columbia County.

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The scuba teams that serve Columbia County consist of Scuba 1 which services all of the County except Catawissa Fire Companys service area and Scuba 50 whose service territory consists of the Catawissa Fire Company's service area.

Quick response squads are based in areas where it takes an ambulance longer than 10 minutes to respond to a call. Quick Respond Squad consist of individuals trained as a first responders or Emergency Medical Technicians (EMT). These individuals provide medical care in the event of an accident until an ambulance and paramedics arrive. Four (4) Quick Response Squads are located within Columbia County while the Unityville Quick Response Squad is based in Montour County.

Table 8-L illustrates the Ambulance Organizations and Quick Response Squads that serve Columbia County and Map 8-9 delineates the services areas of each ambulance corp.

In the future, either additional fire companies will need to add an ambulance service or additional units will need to be supplied by area hospitals.



TABLE 8-K

COLUMBIA COUNTY FIRE DEPARTMENTS

FIRE DEPARTMENTS	DEPT #	CHIEFS	CAPTAINS	ENGINEERS	ATTACK	LADDER	TANKER	BRUSH	AIR	CAR	PORTABLE	EQUIPMENT	EMERGENCY	UNITS	PUMPER
Bloomsburg	10-40	5	4 ·	7	1	1			1						
Catawissa	50	3		2		1	1	1		2					
Beaver	140	1	1	3			1	1							
Benton	150	3	1	. 3			1	1		2					
Berwick	70-80	5	5	[°] 5	1	1			1						· ·
Buckhorn	160	2		1	1		1				1	· · · · ·			
Espy	180	3		2			1 ·								· ·
Lightstreet	190	3			1		1	1	·				·		
Lime Ridge	200	3		1			1		·			1	4-1		
Main	210	1		1		1	.2								•
Millville	230	4		1			2	1					1	6	
Montour	240	2 ·			· 1		1					1			
North Mountain	260			2			1	1					. •		
Valley Chemical	270	3		2	1		1	1					1	·	
Orangeville	280	2		2			1	1		1		•			1
Centralia	340	3		1	1		- 1								
Fernville	360	1		. 1			1						•		
Summer Hill	310	- ·		1			1	2							
Wilburton Hose	330	-			1	·	1								
Aristes	350	· -		2			1								
East Berwick	100	-		1			1								

DURCE: PA Emergency Management Agency - June 1991

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TABLE 8-L COLUMBIA COUNTY AMBULANCE ORGANIZATIONS

ASSOCIATION	TELEPHONE	EQUIPMENT
Benton #150	784-7911	2 units, Basic Life Support, Jaws Light/Heavy Rescue Portables
Berwick \$90	752-3677	3 units, Basic Life Support
Bloomsburg #60	784-7911	2 units - Basic Life Support, 1 utility Light/Heavy rescue Jaws, Portable CB's
Catawissa #50	784-7911	1 unit Basic Life Support - Airbags
Centralia #340	784-7911	1 unit Basic Life Support
Millville #230	784-7911	1 unit - 1 Light Rescue Mobile Radios Basic Life Support
Sugarloaf/North Mountain #264	784-7911	1 unit Basic Life Support
Nescopeck #250	N/A	Not Available
MEDICS		
Bloomsburg	389-2111	1 unit Advanced Life Support
Berwick	752-3677 759-5200	1 unit Advanced Life Support

Source: Columbia County Office of Planning and Development.

The volunteer status of the fire company and ambulance corps could begin to produce increased staffing problems into the future. These community-based emergency service providers must compete with a variety of other agencies, activities, and programs for residents' time and interest. Volunteers must submit to greater time demands due to more sophisticated training procedures, and widely dispersed work locations coupled with increasing traffic congestion make it difficult for adequate numbers of volunteers to reach emergency scenes quickly during regular business hours. Thus, as Columbia County develops and becomes more populated, it may follow the trends of more populous counties towards full-time paid fire fighters and paramedics.

8.9.2 Police

Police Service in Columbia County are provided by municipal police forces for about 80 percent of the County's 33 municipalities, with State Police covering local jurisdictions lacking their own law enforcement agencies. It is frequently difficult for many communities to maintain local forces - municipal costs are rising rapidly and a local police presence may be something that may appear convenient to eliminate, since the State Police, it may be felt will always be there to fill the gap.

Unfortunately, rising populations, real and perceived increases in the crime rate, and an incoming resident population with expectations of a high level of police services all combine to act against the temptation for local governments to eliminate or curtail police services. Over the next ten (10) to twenty (20) years, many local Columbia County police forces will need to be expanded to serve a growing and increasingly affluent population. This will frequently mean increased staff, new facilities, and new equipment. For some municipalities currently lacking their own forces, new forces will need to be established.

- 8.9.2.1 <u>Municipal Departments</u> Eleven (11) full-time and six (6) part-time municipal police departments exist within Columbia County. Table 8-N outlines the service characteristics of the municipal police departments and Map 8-10 delineates the service area of each.
- 8.9.2.2 <u>Pennsylvania State Police</u> The Pennsylvania State Police provide coverage for municipalities lacking any local police force and for areas with part-time local forces at times when they are not operating. The Bloomsburg State Police Barracks located in South Centre Township have ten vehicles and are staffed by thirteen troopers, one sergeant and three corporals. Information on numbers of personnel staffing each shift is not available to the general public.

The Pennsylvania State Police will assist local police forces if specifically requested, however, the following areas are served full-time by State Police:

Beaver Township Jackson Township Pine Township Sugarloaf Township Fishing Creek Township Mount Pleasant Township Centralia Borough



Municipalities	Officers	Cars	Part-time/ Full-time
Benton Boro/Stillwater Boro	3	2	FT
Benton Twp	2	1	PT
Berwick Boro	11	5	FT
Bloomsburg Town	15	6	FT
Briar Creek Boro/Twp/ North Centre Twp	4	2	FT
Catawissa Boro./Twp.	5	2	FT .
S. Centre Twp./Mifflin Twp	4	З	FT
Conyngham Twp.	1	1	PT
Greenwood Twp.	2	1	PT :
Hemlock Twp.	4	2	FT
Locust Twp./Roaring Creek Twp Cleveland Twp./Franklin Twp.	4	2	FT
Madison Twp.	2	-1	PT
Main Twp.	2	- 1	PT
Millville Boro.	5	1	FT
Montour Twp.	.1	1	FT ·
Orangeville Boro./Orange Twp.	1	1	PT
Scott Twp.	10	3	FT

TABLE 8-M POLICE DEPARTMENTS WITHIN COLUMBIA COUNTY

Source: Columbia County Office of Planning and Development.

The following are recommended community development standards and suggested levels of service. These stand-ards are based on national averages published by the REAL ESTATE RESEARCH CORPORATION and are listed on Table 8-N. Further, these standards typically used in regional planning are based on experience, professional, and accepted land use models.

	OFFICERS	VEHICLES
Central City	6.0	1.0
Mature Suburbs	6.0	1.0
Suburb or Fringe	6.0	1.0
Independent Outlying Community	6.0	1.0
Dependent Outlying Community	4.5	0.7
Non-Urban	3.0	0.5

POLICE SERVICE STANDARD/1000 HOUSING UNITS

SOURCE: Real Estate Research Cooperation.

Utilizing the above standards, current and projected populations and housing data, it appears that several municipalities are lacking in terms of the police service provided. Many municipalities currently provide only part-time protection including Benton, Conygham, Greenwood, Madison, Main and Orange Townships and Orangeville Borough. Based on the above standards these municipalities should have at least one or two full-time officers. Of those municipalities providing full-time police protection it appears that Berwick, Bloomsburg, and Briar Creek Borough and Briar Creek and North Centre Townships need additional personnel.

It should be kept in mind that only municipalities with existing police forces have been analyzed. Further, the level of service provided by the State Police may not adequately meet the needs of those municipalities that do not provide police protection. If this is the case the need for new staff, new facilities, and new equipment may exist.

Table 8-0 reflects the suggested level of service according to the Real Estate Research Corporation and the addition personnel needed by municipal police force.

Municipalities	Population	Housing Unit (HV)	Existing Personnal/Cars	Level of Service Level of Service Personnel/Car /1000 H.U.	Additional Additional Need Personnel/Car
Benton Boro/Stillwater Boro	1181	464	3/2 FT	3/.5	0-0
Benton Twp	1094	408	2/1 PT	3/.5	1-1
Berwick Boro	10940	4618	11/5 FT	6/1	13-0
Bloomsburg Town	9244	3926	15/6 FT	6/1	12-0
Briar Creek Boro/Twp/ North Centre Twp	5486	2043	4/2 FT	6/1	8-0
Catawissa Boro./Twp.	2720	1104	5/2 FT	6/1	1-0
S. Centre Twp./Mifflin Twp	4196	1591	4/3 FT	6/1	5-0
Conyngham Twp.	1038	400	1/1 PT	3/.5	1-1
Greenwood Twp.	1917	679	2/1 PT	3/.5	2-1
Hemlock Twp.	1546	589	4/2 FT	4.5/.7	0-0
Locust Twp./Roaring Creek Twp Cleveland Twp./Franklin Twp.	3407	1276	4/2 FT	4.5/.7	1-0
Madison Twp.	1565 _/	536	2/1 PT	3.0/.5	2-1
Main Twp.	1241	420	2/1 PT	3.0/.5	1-1
Millville Boro.	658	367	5/1 FT	3.0/.5	0-0
Montour Twp.	1419	557	1/1 FT	3.0/.5	0-0
Orangeville Boro./Orange Twp.	1371	499	1/1 PT	3.0/.5	1-1
Scott Twp.	4409	1798	10/3 FT	6.0/1	1-0

TABLE 8-0 POLICE DEPARTMENTS WITHIN COLUMBIA COUNTY

Source: Columbia County Office of Planning and Development.

8.9.3 Columbia County Emergency Management Agency

The Columbia County Emergency Management Agency is responsible for the direction and control of all emergency situations that occur in Columbia County. The Columbia County center of Emergency Communications is responsible for the county's emergency dispatch center, which processes the dispatch of all police, fire and ambulance calls for the County.

These agencies will be merging into one department - Public Safety. It is anticipated that this change will take place within the next year and will necessitate the construction of a new facility to house this development.

8.10 <u>Recreation Facilities and Services</u>

Community concern for preserving and developing areas for recreational use generally evolved in response to problems associated with urbanization. Recent changes in social attitudes and living patterns have influenced how counties provide recreational programs or facilities. Irregardless of the influential forces, recreation remains an important community asset, not only for business generated by recreation, but also for the part that well-planned areas and facilities can play in stabilizing population, reducing business turnover, attracting new industry, and providing for a total community living environment that offers for a full range of amenities.

A wide variety of recreational attractions and activities exist for residents and non-residents of Columbia County. Composed predominantly of rural farmlands that give way to sloping forests in the north, Columbia County holds ample opportunities for outdoorsman. The Susquehanna River and numerous smaller streams like Fishing Creek provide anglers, boaters, and swimmers with outstanding fishing and watersports options. Hunters will find an abundant supply of game on State Game Lands. Winter-sports enthusiasts may enjoy activities like snowmobiling, cross-country skiing, and ice fishing. Also available are a variety of campgrounds and numerous scenic picnic spots. These recreational facilities are inventoried in the following sections and mapped on Map 8-11.

8.10.1 Park and Open Space Standards

Park and open space standards address community-wide spatial requirements based on the policies set forth in a land-use plan. A generic classification has been developed for specific kinds of park and recreation areas. It addresses function, design intended, use resource characteristics, and preferred location.

The basic element of the planning function is the classification of areas. The vast majority of classification efforts are agency-oriented and, therefore, include physical descriptions and broad functional categories as the basis for definition. The identification of responsibility requires that classifications be based on people-oriented factors (such as the number of people required to make a special facility meaningful) or the attraction capability of a particular recreation experience or physical resource. This size of a specific area or facility has only limited relationship to the service radii from which patronage is drawn. The attraction capability of any particular area or facility is dramatically affected by the quality or uniqueness of design and development. Furthermore, attendance is influenced by the type and variety of programs offered and the operational factors of leader-ship, employee attitudes, and quality of maintenance. In essence, a recreation facility should be designed and programmed to serve the particular needs of a defined segment of the population.

These segments may be identified by age or special interests, or combinations thereof. It should be noted that all park areas or facilities will tend to attract variable publics. Classifications are based on primary intent and service of a particular area and may have to be adjusted when actual use is evaluated.

Geographic location, demographics, economic base, and history are important variables that influence the availability of resource patterns and opportunities to provide these unique special purpose opportunities. Clearly, these are important, but should not outweigh the primary need to meet the basic needs of all citizens.

The important point to be considered, however, is that Columbia County should have a number of different types of parks. In too many instances, communities have "met the standard" in terms of acreage, but have met it through the provision of a single large park. In other words, the number of areas was totally inappropriate.

As well, not all the parks may be under the jurisdiction of a single agency. Parks under the control of county, state and federal government agencies, other units of government (schools), and private interest must also be considered.

This classification system is intended to serve as a guide to planning - not as an absolute blueprint. Sometimes more than one component may occur within the same site (but not on the same parcel of land), particularly with respect to special uses within a regional park. Planners of park and recreation systems should be careful to provide adequate land for each functional component when this occurs.

The National Recreation and Park Association suggests that a park system, at a minimum, be composed of a "core" system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population. The size and amount of "adjunct" parklands will vary from community to community, but must be taken into account when considering a total, well-rounded system of parks and recreation areas. Table 8-0 illustrates these standards.

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TABLE 8-P

CLASSIFICATION SYSTEM FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

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COMPONENT	USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
A LOCAL/CLOSE-TO- Mini-Park	HOME SPACE: Specialized facilities that serve a concen- trated or limited popu- lation or specific group such as tots or senior citizens.	 Less than 1/4 mile radius.	1 acre or less	0.25 to 0.5 acre	Within neighborhoods and in close proximity to apartment com- plexes, townhouse development or housing for the elderly.
Neighborhood Park/Playground	Area for intense recre- ational activities, such as field games, court games, crafts, playground apparatus area, skating, picnicking, wading pools, etc.	1/4 to 1/2 mile radius to serve a population up to 5,000 (a neighbor- hood).	15+ acres	1.0 to 2.0 acres	Suited for intense development. Easily accessible to neigh- borhood population - geographically centered with safe walking and bike access. May be devel- oped as a school- park facility.
Community Park	Area of diverse environ- mental quality. May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools. May be an area of natural quality for outdoor rec- reation, such as walking, viewing, sitting, pic- nicking, etc. May be any combination of the above, depending upon site suitability and community need.	Several neighbor- hoods. 1 to 2 mile radius.	25+ acres	5.0 to 8.0 acres	May include natural features, such as water bodies, and areas suited for intense development. Easily accessible to neighborhood served.
B. REGIONAL SPACE Regional/Metro- politan Park	Area of natural or orna- mental quality for out- door recreation, such as picnicking, boating, fishing, swimming, camp- ing, and trail uses; may include play areas.	Several communi- ties. 1 hour driving time.	200+ acres	5.0 to 10.0 acres	Contiguous to or encompassing natural resources.
Regional Park Reserve	Area of natural quality for nature-oriented out- door recreation, such as viewing and studying nature, wildlife habitat, conservation, swimming, picnicking, hiking, fish- ing, boating, camping, and trail uses. May in- clude active play areas. Generally, 80% of the land is reserved for conservation and natural resource management, with less than 20% used for recreation development.	Several communi- ties. 1 hour driving time.	1,000+ acres; sufficient area to encompass the resource to be preserved and managed.	Variable	Diverse or unique natural resources, such as lakes, streams, marshes, flora, faunae, topography.

TABLE 8-P (continued)

CLASSIFICATION SYSTEM FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

COMPONENT	USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
C.SPACE THAT MAY	C.SPACE THAT MAY BE LOCAL OR REGIONAL AND IS UNIQUE TO EACH COMMUNITY:				
Linear Park	Area developed for one or more varying modes of recreational travel, such as hiking, biking, snowmobiling, horseback riding, cross-country skiing, canceing and pleasure driving. May include active play areas. (NOTE: any included for any of above components may occur in the "linear park".)	No applicable standard.	Sufficient width to pro- tect the resources and provide maxi- mum use.	Variable	Built or natural cor- ridors, such as util- ity rights-of-way, bluff lines, vegeta- tion patterns, and roads, that link other components of the recreation system or community facilities, such as schools, libraries, commercial areas, and other park areas.
Special Use	Areas for specialized or single purpose recrea- tional activities, such as golf courses, nature centers, marinas, zoos, conservatories, arboreta, display gardens, arenas, outdoor theaters, gun ranges, or downhill ski areas, or areas that preserve, maintain, and interpret buildings, sites, and objects of archeological signifi- cance. Also plazas or squares in or near com- mercial centers, boule- vards, parkways	No applicable standard.	Variable depending on desired size.	Variable	Within communities.
Conservancy	Protection and manage- ment of the natural/ cultural environment with recreation use as a secondary objective.	No applicable standard.	Sufficient to protect the resource.	Variable	Variable, depending on the resource being protected.

SOURCE: Planning Design Criteria, Van Nostrand Reinhold Company.

8.10.2 <u>County Recreation Facilities</u>

Columbia County owns and operates two recreational facilities: Twin Bridges located in Fishing Creek Township and Briar Creek Lake located just north-west of Berwick.

8.10.2.1 <u>Twin Bridges</u> - The Twin Bridges recreational site consisting of 1.3 acres, is along the Huntington Creek, adjacent to twin covered bridges which have been restored by the county. Picnic and sanitary facilities are available as well as wading and swings for children. The site is very popular with the demand often exceeding the capacity, particularly on weekends.
8.10.2.2 <u>Briar Creek Lake</u> - The Briar Creek Lake recreational site consisting of 173.6 acres offers excellent fishing and picnicking facilities. This site was developed and is maintained by Columbia County in cooperation with the Pennsylvania Fish Commission, the park is two miles north of Route 93 just west of Berwick.

Utilizing the Regional Recreational Standard of 5.0 to 10.0 acres of recreational area per every 1000 person, which equates to 316 and 632 acres respectively, it appears as though Columbia County is lacking in Regional Recreational Facilities. This inadequacy, however, is nullified by the fact that nearly 35,000 acres of State Game Lands, State Parks and nature preserves exist in or near Columbia County. It appears as though these regional facilities will adequately serve the regional recreational needs through the year 2020.

8.10.3 <u>Municipal Parks and Recreation Areas</u>

8.10.3.1 <u>Bloomsburg Town Park</u> - The original thirteen acres of Bloomsburg Town Park were purchased in 1927 by thirty Bloomsburg residents, each contributing \$750 towards the purchase price. Today, the park covers forty-three (43) acres.

Facilities available include picnicking, tennis, soccer, basketball, volleyball, basketball, field shuffleboard, fishing, football or frisbee. field hockey, The new street hockey court is one of the few in the country to specifically accommodate this sport. The mile-long fitness and jogging trail is popular year-round. An additional feature is Kidsburg, a playground facility. In the summer, swimming is available for a small fee in Bloomsburg's Memorial Pool, located at the Parks east Special events, include the Fishing Derby in May, end. the Traditional Cake and Ice Cream Festival in August, and Teen Dances throughout the summer.

8.10.3.2 <u>Ber-Vaughn Park</u> - This park is located in Briar Creek Borough which adjoins the Borough of Berwick on its western boundary. It comprises approximately 25 acres of land, about one-half of which is wooded, improved with a swimming pool, Little League Baseball diamond, one (1) softball field, several tennis courts, a remote control race car track, a dance pavilion and band stand, fireplaces, picnic tables, shelters and children's playground equipment. The Borough of Berwick plans to upgrade the swimming pool, tennis courts, and pavilions within the next two (2) years.

Borough of Millville Community Park - This 7-8.10.3.3 1/4 acre park is located in the central part of the Borough of Millville along Chestnut Street, across from the high school. Facilities include a swimming pool, Baseball field, Little League tennis courts, а picnic pavilions, court, and playground basketball Access and use of the park and its equipment. facilities is free for all residents of the Borough and Madison, Pine and Green-wood Townships, but a small fee is charged for admission to the community pool. A Park Commission, made up of two (2) representatives from Borough Council and two (2) members from each of the neighboring Townships coordin-ates management and planning efforts for the facility, with the exception of the pool complex. A Swimming Pool Association, made up representatives from the same four (4) of municipalities, oversees the operation of the pool, develops the complex's annual budget, and determines the contribution appropriate financial for each participating municipality.

8.10.3.4 Borough of Benton Community Park - The Borough of Benton maintains a 19 acre community park adjacent to a former grist mill dam on Fishing Creek within the Borough. The dam provides an ample swimming facility for residents of the area. Facilities include picnic tables, as well as several active play areas including a soccer and baseball field, tennis and basketball courts. This facility is home to the annual Benton Borough Fireman's Carnival.

8.10.3.5 Locust Township Municipal Park - Public recreation facilities are provided by Locust Township through a municipal park located on Ringtown-Mountain Road just east of Numidia. Here, facilities are available for picnicking, walking and volleyball. A ball field for organized sports is provided at the Township building facility to the south of Numidia. While no other public recreation facilities exist in the Township, the Township building offers an opportunity for social groups to house their activities.

8.10.3.6 <u>Catawissa Borough</u> - The only outdoor recreation facility located in the Borough of Catawissa is the dam on Catawissa Creek which is utilized intensively for swimming. A Little League ball field is now being developed.

8.10.3.7 <u>Columbia Park</u> - Columbia Park, which is owned and maintained by South Centre Township, consists of 17.0 acres. A wide variety of recreational opportunities west at this facility including a large picnic area, a skating rink, a baseball field, a volley ball court, two tennis courts, a basketball court, bandstand for entertainment and a variety of playground equipment.

It appears as though each municipal park serves the needs of each community adequately. Those municipalities that currently do not have park facilities should, in the future, designate land for recreation purposes as need warrants.

8.10.4 State Parks and Forests

8.10.4.1 <u>Ricketts Glen State Park</u> - This State Park, of which 3.46 acres are located in Columbia County, comprises approximately 13,000 acres. Camping, fishing, and swimming are available at Lake Jean which is accessible by way of Route 487.

8.10.4.2 <u>State Game Lands</u> - There are four State Game Land areas in Columbia County each providing quality small and large game hunting. Game Land #13, located in northern Sugarloaf Township, consists of nearly 1,000 acres. Game Land #58 consist of 12,646 acres in the Nescopeck and Catawissa Mountains. Game Land #55 located along the Knob, Lee and Huntington Mountains consist of 2,474 acres. Game Lands #226, more than 4,330 acres in area, is located north-west of Millville.

8.10.4.3 <u>Montour Preserve</u> - Covering nearly 1,000 acres in Montour County four (4) miles northeast of Washington-ville, Montour Preserve is maintained as a nature sanctuary and outdoor recreational area by Pennsylvania Power and Light Company. The preserve encompasses 165-acre Lake Chillisquaque and ten (10) natural trails ranging in length from a quarter mile to more than four (4) miles. Wetlands on the lake's northern end attract migrating birds such as duck's, geese, loons, grebes, and swans. Open Monday - Friday from 9:00 a.m. to 4:00 p.m. and Saturday and Sunday from noon to 4:00 p.m., the Preserve's Visitors Center houses information displays about nature and local history.

8.10.4.4 <u>Susquehanna Riverlands</u> - Pennsylvania Power & Light also co-owns and operates the Susquehanna Riverlands recreational area northeast of Berwick on the Susquehanna River, in Luzerne County. The 1,200 acre area occupies both sides of the river and provides yearround outdoor fun as well as a wetlands haven for wildlife. Susquehanna Riverlands features hiking trails, picnic spots, a boat launch, a scenic overlook, hunting areas, and special education programs.

8.10.5 <u>Major Natural Features</u>

8.10.5.1 <u>Susquehanna River</u> - The North Branch of the Susquehanna River bisects the County from east to west adding much to the area's natural beauty and providing opportunities for boating and fishing.

8.10.5.2 <u>Fishing Creek Valley</u> - Fishing Creek Valley extends northward from the Susquehanna River at Bloomsburg into Rickett's Glen State Park. This creek provides many fine camping, swimming and fishing areas. In Benton, a large park with swimming facilities exist adjacent to the Benton Dam. The Boy Scouts of America maintain an outdoor facility at Camp Lavigne north of Benton.

8.10.5.3 <u>Catawissa Creek</u> - The Catawissa Creek Valley is a scenic area worthy of conservation. Camp Catawissa is a privately owned recreational youth camp providing year round activities including: swimming, horseback riding, tobogganing, hiking, nature craft and general outdoor recreation.

8.10.6 Other Recreational Facilities and Activities

Other active recreational facilities include municipal facilities as well as a multitude of for profit facilities. Included in this category are golf courses and golfing facilities, camp grounds, motor sports facilities, several pools, amusement parks, hunting clubs, fair grounds, and boating clubs.

8.10.6.1 <u>Knoebels Amusement Resort</u> - Knoebels Amusement Resort, Pennsylvania's largest free-admission amusement park, in Elysburg features thirty-eight rides, with thirteen especially designed for children. Recent additions include the Whirlwind Corkscrew Coaster and Knoebels Carousel Museum, which displays a collection of antique carousel horses and memorabilia. Knoebels has consistently earned accolades for its Phoenix roller coaster, giant Flume water ride, and Scooter Bumper Cars.

The park is also known for fine fare such as Cesari's pizza and barbecued chicken at the Oasis Cafeteria. Besides thrill rides and food, Knoebels has many free picnic pavilions plus the 750,000-gallon Giant Crystal Pool for summertime swimming and sliding. Knoebels Campground caters to families with 500 campsites and twenty-one log cabins for rent. Knoebels is located on the County line, three miles east of Elysburg on Route 487 and is open May 30th through Labor Day. 8.10.6.2 <u>Golf Courses</u> - Golfers have their choice of several area courses and driving range facilities in Columbia County. Publicly accessible golf courses and facilities include: Mill Race Golf & Camping Resort located just north of Benton in Benton Township; Wolf's Hollow Golf Center featuring a nine-hole course, minigolf, driving range, arcade and go-karts located one mile south of Interstate 80 just west of Mifflinville in South Centre Township; Arnold's Golf Course located in Mifflin Township; and Willow Run Golf Course an 18-hole Golf course located just north of Interstate-80 in Berwick, South Centre Township. The Berwick Country Club is a privately owned golf club located just north of Berwick in Briar Creek Township.

8.10.6.3 <u>Campgrounds</u> - Many Columbia County residents, in addition to tourists, use the privately operated local campgrounds. These facilities include: Shady Rest Camping area near Millville; Turner's High View Camping located near Bloomsburg which features 30 acres, weekend and holiday entertainment, and a playground; Indian Head Recreational Campgrounds in Rupert which features fishing, boating, bicycling, and hiking; Diehl's Camping Resort near Bloomsburg which features hiking trails, a playground, a swimming pool, bicycle rentals, and church services; Slabtown Campground; Grassmere Park; and Knoebels Campground a 500-site area.

8.10.6.4 <u>Camp Victory</u> - Camp Victory is located in Greenwood Township, is a recently-opened camping facility designed for medically and physicallyhandicapped disadvantaged children. The camp is supported by many social organizations and represents an opportunity for handicapped children to participate in outdoor recreational activities.

8.10.6.5 <u>Bloomsburg Fair</u> - Over 135 years old the Bloomsburg Fair attracts more than 750,000 visitors each year for a week of exciting activities, top-name entertainment, and agricultural exhibits. Besides livestock and agricultural displays in over thirty modern exhibition buildings, visitors are treated to free harness racing, a demolition derby, marching bands, and stage entertainment featuring numerous artists from stage and screen.

Covered Bridge & Arts Festival - The Covered 8.10.6.6 Arts Festival pays homage to the area's Bridge & historical heritage. Featuring covered-bridge tours, traditional crafts, food, entertainment and antique is headquartered at Knoebels festival The cars. Amusement Resort in Elysburg. Additional events also are held at the Twin Covered Bridges in Forks. ·A bicycle race, the Covered Bridge Fall Classic Bicycle

Race, is also held each year. The seventy-five mile race passes through or by seventeen covered bridges and concludes at Knoebels Grove.

8.10.6.7 <u>Benton Frontier Days Celebration</u> - This celebrations main event is a professionally sanctioned championship rodeo. Food, carnival rides, and concessions are also featured.

8.10.6.8 <u>Annual Renaissance Jamboree</u> - The Annual Renaissance Jamboree, held downtown Bloomsburg on the last Saturday of April, features more than 250 arts and crafts displays, live entertainment on three stages, roving artists and performers, kiddie rides, plus food, games, and information booths.

8.10.6.9 Antiques at Bloomsburg - The annual Antiques at Bloomsburg show, held at the Bloomsburg Fairgrounds' Industrial Arts Building, hosts over 100 exhibitors displaying furniture, country items, stoneware, glass art, estate jewelry, toys, tools, pottery, books, china, and more.

8.10.6.10 <u>Bloomsburg Theater Ensemble</u> - The Bloomsburg Theater Ensemble, located in downtown Bloomsburg, presents professional performances of such well-known plays as The Glass Menagerie, Of Thee I Sing, and Alice's Adventures in Wonderland in the Alvina Krause Theater.

Currently, it appears as though ample recreational opportunities are provided in the County. However, it may be necessary to expand these recreational opportunities to correlate with future demand.

A key role for the County in future park and recreation development will be in promoting the establishment, protection, and selective development of a Countywide permanent open-space system.

8.11 <u>Summary of Findings and Conclusions</u>

The community facilities analysis is intended to provide an evaluation of past, present, and future community facility needs and services for Columbia County.

Community facilities and services include utilities such as electric power, telephone, natural gas, radio, television, solid waste disposal and recycling, education, health care, police, fire, ambulance, and recreation facilities.

In general, many of the aforementioned facilities and services are provided only in the more densely populated municipalities of the County. Overall, a total of seven (7) municipal and sixteen (16) community water systems exist in Columbia County. total four (4) Further, a of municipal sewage collection/treatment systems are currently operating within Columbia County, while nearly 58% of the residential dwellings, farms, commercial operations, institutions and industries in Columbia County utilize on-site sewage systems. It appears as though these facilities adequately meet the water demands of their service area.

The supply and distribution of electric power in Columbia County is through the Pennsylvania Power and Light Company. It has been estimated by P.P.&L. that it has sufficient capacity to handle additional electrical loads in Columbia County through the year 2005.

The Pennsylvania Gas and Water Company, P.G.& W. is the only supplier of natural gas in Columbia County. It appears as though P.G.& W. has sufficient volume to supply its service area over the next 20 years.

Telephone service is provided by two (2) companies - Bell Telephone of Pennsylvania and the Commonwealth Telephone Company of Pennsylvania. These companies provide telephone service to every portion of the County.

In addition to individual antenna reception from Scranton and Wilkes Barre, Columbia County residents can subscribe to one of two cable television companies operating locally. Service Electric Cable TV, Inc., service area is located primarily north and northeast of I-80. Cable TV Co., operates throughout the County.

A wide variety of solid waste is generated in Columbia County each year. During 1992, it was reported that 30,970.5 tons of MSW was disposed of by solid waste haulers. An increase of nearly 20,000 tons of MSW's collected and disposed of is anticipated for 1993. Further, nearly 5,300 of MSW was recycled during 1992 thus eliminating 5,300 tons of waste from the waste stream. Many municipalities participate in recycling activities. However, only two are mandated according to Act 101. Those municipalities with existing recycling programs include: the Town of Bloomsburg, Boroughs of Berwick, Millville, Benton, Catawissa and Orangeville and Beaver, Orange, Scott, and Fishing Creek Townships.

It appears as though the existing solid waste management system adequately meets the needs of the county. However, it must be kept in mind that Act 101 established a goal of recycling at least 25% of all municipal waste and sourceseparated recyclable materials by 1997. During 1992, the county recycled 17.0% of the MSW generated within its borders.

Columbia County is divided into six (6) school districts: Benton, Berwick, Bloomsburg, Central Columbia, Millville, and Southern Columbia. During 1992, a total of 10,420 students attended area schools with an average student teacher ratio of 16.3:1. Based on the student capacity of each school and the relatively low student to teacher ratio it appears as though Columbia County adequately meets the educational needs of the County.

Columbia County is also served by a broad array of higher educational opportunities. At least ten (10) colleges and universities are located throughout the region, including Bloomsburg University, Lycoming College and Penn College in Williamsport, Lock Haven, Bucknell University in Lewisburg, Susquehanna University in Selinsgrove, Wilkes College and Kings College in Wilkes-Barre and Penn State at Hazleton.

Also, a total of eight licensed private academic schools, two licensed and/or registered schools and five non-public parochial schools exist within Columbia County.

Several health care facilities exist within or very near Columbia County. Two hospitals exist in the County and the Geisinger Medical Center is located just south-west of the Borough of Danville in Montour County. With a total compliment of over 500 beds and over 600 practicing physicians, it appears as though these facilities adequately meet the needs of the County.

At this time, public safely services are adequate to serve the current population of Columbia County. However, due to rising populations and an incoming, more affluent resident population with expectation of increased service, the levels of existing services may not adequately meet the needs of the County. This will frequently mean increased staff, new facilities, and new equipment for all public protection services. Public library facilities are located throughout the County. It is believed, however, that the existing library system is inadequate in terms of size, collections, and accessibility. Several library facilities are currently planning expansions and a county library system has been proposed. If these expansions and a county library system is established, the library system would adequately meet the needs of county residents.

Columbia County residents have ample recreational opportunities to meet their recreational needs. Several municipal, county, state, and privately owned parks compose the County's park system. It is anticipated that these opportunities will need to be expanded as development occurs throughout the County.

9. TRANSPORTATION

CHAPTER 9

TRANSPORTATION

9.1 <u>Introduction</u>

The highway and motor vehicle have become essential elements in the transportation of goods, people, and services due to their flexibility in terms of providing direct and efficient origin to destination connections. In recent years, dependence on the motor vehicle has continued to increase dramatically and thus efficient transportation networks become essential to the growth and development of a community. Indeed, Columbia County is heavily dependent on the automobile as a source of transportation, highlighted by the fact that as of 1990, 88.7% of all workers in Columbia County used a car, truck, or van as a mode of transportation to work. At the same time, only 13% and 0.2% respectively, of all workers journeyed to work by car pool or public transportation. Failure to keep pace with increased traffic volumes may cause increased congestion which could result in diseconomies and detract from the quality of life and desirability of the area.

The basic means of transportation in Columbia County will remain the motor vehicle. Therefore, it is extremely important to identify and examine the existing transportation system in Columbia County. The transportation analysis will inventory the condition of existing roadways, review traffic movements and current volumes, and identify deficiencies in the existing transportation system.

Furthermore, other modes of transportation will be addressed such as the public transportation system, existing rail lines, and air travel facilities.

9.2 <u>Roadway Classification System</u>

In order to examine the existing transportation system in Columbia County, it is necessary to define the classification of roadway systems established by the Federal Highway Administration, U.S. Department of Transportation and the Pennsylvania Department of Transportation. Roadways are grouped or defined based upon the function that they are intended to serve. Thus, a hierarchial and logical-order system of road classification has been developed which can be useful in planning and determining future roadway improvements.

The National Highway Functional Classification System categorizes roads and highways as follows for both rural and urbanized areas: Principal Arterials, Minor Arterials, Collector Roads, and Local Roads and Streets.

9.2.1 <u>Rural Principal Arterial Road System</u>

It consists of a connected rural network of continuous routes having the following characteristics:

- 1. Serves corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel.
- 2. Serves all, or virtually all, urban areas of 50,000 and over in population and a large majority of areas with a population of 25,000 and over.
- 3. Provides an integrated network without stub connections except where unusual geographic or traffic flow conditions dictate otherwise.

The principal arterial system is stratified into the following two categories:

- <u>Interstate System</u>. The Interstate subclassification consists of all presently designated routes of the Interstate System.
- Other principal arterials. This subclassification consists of all non-Interstate principal arterials.

9.2.2 <u>Rural Minor Arterial Road System</u>

The rural minor arterial road system should, in conjunction with the principal arterial system, form a rural network having the following characteristics:

- 1. Link cities and larger towns (and other traffic generators, such as major resort areas, that are capable of attracting travel over similarly long distances) and form an integrated network providing interstate and intercounty service.
- 2. Be spaced at such intervals, consistent with population density, so that all developed areas of the State are within a reasonable distance of an arterial highway.
- 3. Provide (because of the two characteristics defined immediately above) service to corridors with trip lengths and travel density greater than those predominantly served by rural collector or local systems. Minor arterials therefore constitute routes whose design should be expected to provide for relatively high overall travel speeds, with minimum interference to through movement.

9.2.3 <u>Rural Collector Road System</u>

The rural collector routes generally serve travel of primarily intra-county rather than statewide importance and constitute those routes on which (regardless of traffic volume) predominant travel distances are shorter than on arterial routes. Consequently, on the average, more moderate speeds may be typical.

In order to define more clearly the characteristics of rural collectors, this system should be subclassified according to the following criteria:

- <u>Major collector roads</u>. These routes should: (1) Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance, such as consolidated schools, shipping points, county parks, important mining and agricultural areas, etc.; (2) Link these places with nearby larger towns or cities, or with routes of higher classification; and (3) serve the more important intracounty travel corridors.
- <u>Minor collector roads</u>. These routes should: (1) Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road; (2) provide service to the remaining smaller communities; and (3) link the locally important traffic generators with their rural hinterland.

9.2.4 <u>Rural Local Road System</u>

The rural local road system should have the following characteristics: (1) Serve primarily to provide access to adjacent land; and (2) provide service to travel over relatively short distances as compared to collectors or other higher systems. Local roads will, of course, constitute the rural mileage not classified as principal arterial, minor arterial, or collector roads.

9.2.5 <u>Urban Local Street System</u>

The local street system comprises all facilities not on one of the higher systems within urbanized areas. It serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes. Service to through traffic movement usually is deliberately discouraged.

9.3 Inventory and Analysis of Existing Roadway System

9.3.1 <u>Functional Classification</u>

The number of miles of State jurisdiction roadway within Columbia County can be categorized under the accepted Functional Classification System in the following manner:

•	Interstate Principal Arterials	18.52 miles
• (Other Principal Arterials	25.51 miles
•	Minor Arterials	62.85 miles
•	Major and Minor Collectors	227.26 miles
•	Local Roads and Streets	184.20 miles
• •	Total	518.40 miles

According to the Pennsylvania Department of Transportation, 855.87 miles of municipally owned roadways exist in Columbia County. An additional 57.28 miles roadway are owned by State Agencies other than PennDOT. Thus, the total number of roadway miles in Columbia County is 1,431.55.

The roadways in Columbia County can be categorized under the National Highway Functional Classification System in the following manner:

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Rnanway	

Interstate 80

U.S. Route 11

U.S. Route 11 (from Montour County line to Route 42 interchange)

PA Route 42

PA Route 42 (from Catawissa to I-80 interchange)

PA Route 44

PA Route 54

PA Route 93 (along U.S. Route 11 East of Berwick) Functional Classification

Interstate Principal Arterial

Principal Arterial

Minor Arterial

Minor Arterial

Principal Arterial

Major Collector

Principal Arterial

Principal Arterial

•	Roadway	Functional Classification
	PA Route 93 (from Berwick to Briar Creek Municipal Boundary)	Minor Arterial
• . •	PA Route 93 (from Berwick Boundary line to Orangeville)	Major Collector
	PA Route 118	Minor Arterial
	PA Route 239	Major Collector
	PA Route 254	Major Collector
•	PA Route 339	Major Collector
	PA Route 339 (thru Mifflinville to I-80 interchange)	Minor Arterial
	PA Route 442	Major Collector
	PA Route 487 (from Franklin Township Boundary to Catawissa)	Minor Arterial
	PA Route 487 (from Catawissa to East Bloomsburg)	Major Collector
•	PA Route 487 (from East Bloomsburg to I-80 interchange in Scott Township)	Principal Arterial
	PA Route 642	Major Collector
	Legislative Route 1004	Minor Arterial
	Legislative Route 1023	Minor Arterial
	Legislative Route 1025 (from Berwick to Briar Creek Township line;	Principal Arterial
	Legislative Route 1025 (from Briar Creek to Fishing Creek)	Major & Minor Collector
	Legislative Route 1025 (from Fishing Creek to Benton Township)	Local Road
	Legislative Route 4009 (from U.S. Route 11 to I-80)	Minor Arterial

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There have been several changes in the classification of certain State jurisdiction roadways within Columbia County over the past twenty (20) years. The classification of Columbia County roadways has been updated by the Pennsylvania Department of Transportation (PennDOT). Changes in the classification of State roadways have been noted using a 1993 Roadway Management Information System summary report provided by PennDOT. Changes in these classifications are as follows:

- PA Route 93 was previously classified solely as a major collector. Currently, approximately a fourtenth of a mile segment of this route along U.S. Route 11, southeast of Berwick, has been updated to a principal arterial. Furthermore, another segment of Route 93, stretching from Berwick to the Briar Creek Municipal boundary has been re-classified as a minor arterial.
- PA Route 339 has maintained its status as a major collector to include the interchange of I-80 at Mifflinville.
- 3. PA Route 442 has been classified by PennDOT as a major and minor collector. This roadway was previously classified as a minor arterial.
- 4. A 2.03 mile segment of PA Route 487, stretching from east of Bloomsburg to the Interstate 80 interchange has been classified by PennDOT as a principal arterial. This principal arterial was formally classified as a minor arterial and services the town of Bloomsburg and facilitates traffic flow to I-80.
- 5. A 3.9 mile segment of PA Route 42, extending from Catawissa and approaching the Interstate 80 interchange, has been re-classified as a minor arterial.
- 6. Legislative Routes 1004, 1023, and 4009 have all been re-classified as minor arterials by PennDOT.
- 7. A 1.68 mile segment of Legislative Route 1025 has been updated and re-classified from a minor collector to a principal arterial.

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The importance of inventorying the County's roadway system can be understood in terms of its use as a planning tool. For planning and design purposes, highways are most effectively classified by function. A functional classification system provides an orderly and logical way for determining priorities for highway improvements. Maintenance and operations planning for future improvements on roadway systems is made easier through the use of a functional classification system.

9.3.2 Existing Roadway Network

Columbia County's roadway network consists of two primary transportation corridors, U.S. 11 and Interstate 80, which run in an east/west direction (regionally U.S. 11 is a North/South system, locally is an east/west system). Interstate 80 and U.S. 11 are the key corridors which dissect the County in an east/west direction. Most other primary state routes intersect these two key corridors at some point along their route and therefore serve as a means of immediate access to the primary corridors of U.S. 11 and I-80. These points of intersections are significant because they are often areas that experience intense peak traffic flow, and therefore must be studied in detail to ensure that current conditions are suitable for smooth traffic flow.

Map 9-1 illustrates the key roadway corridors and associated intersections within the Columbia County Comprehensive Plan study area. The key corridors are described below:

<u>Interstate 80</u>: This east-west route traverses the entire width of Columbia County providing immediate access to the county's primary economic centers, Bloomsburg and Berwick which can be accessed by utilizing the Route 42 and U.S. 11 interchanges. Additionally, there are intersections at Pennsylvania Route 487 at Lightstreet and Pennsylvania Route 339 at Mifflinville.

I-80 is a federally funded, four lane divided highway built to specifications that are capable of handling large traffic volumes and significant amounts of motor freight. The interstate has 12' pavement widths and minimum curvature ideally intended to allow for uninhibited traffic flow.

• <u>U.S. Route</u> 11: U.S. 11 is a principal arterial which traverses the county in an east to west direction connecting Berwick, Bloomsburg, and Danville. The construction of I-80 in the mid-60's has relieved U.S.11 of its primary duty as a major volume of traffic between the communities of Danville, Bloomsburg, and Berwick, passing through their central business districts.

U.S. 11 alternates between two and three lanes providing a passing and left turn lane on an alternating basis. In heavily congested areas through the towns of Bloomsburg and Berwick the roadway has been widened to four lanes.

<u>Pennsylvania Route 42</u>: Pennsylvania Route 42 is a north-south corridor extending from its intersection of Pennsylvania Route 54 at Centralia to the north where it crosses the Lycoming County boundary just north of Millville. As a north arterial, Pennsylvania Route 42 provides immediate access to several towns including Catawissa, Bloomsburg, Buckhorn, and Millville.

Regionally, Route 42 serves as an access corridor to the Scranton-Wilkes-Barre MSA since it joins Pennsylvania Route 118 in the north which is a primary corridor into the Williamsport and Scranton area. Furthermore, it serves as a connector to the Pottsville, Reading, and Philadelphia areas.

Route 42 alternates between two (2) and three (3) lanes, with, the third lane serving as a passing or left turn lane.

<u>Pennsylvania Route 44</u>: Route 44 in a northwest direction with its origins in Columbia County in the eastern portion of Hemlock Township, leading out of the county at the western border of Madison Township. Route 44 stretches for approximately 1.9 miles. Regionally, Route 44 connects two municipalities - Madison and Hemlock making this short segment an important part of the regional network.

<u>Pennsylvania Route 487</u>: Pennsylvania Route 487 serves as a north-south corridor beginning at Catawissa and continuing north intersecting Route 11 at Bloomsburg, I-80 at Lightstreet, and passing through Orangeville, Stillwater, Benton and finally intersecting Route 118; the access corridor to the Williamsport - Scranton area. Route 487 has been upgraded from a major collector to a minor arterial.

Route 487 remains primarily a two lane system and therefore is unreliable as an adequate means of transportation. It is not suited for heavy usage as a arterial roadway and its usefulness as such is limited. **Conservivantial Route 339:** Route 339 has a general north-south orientation and provides many smaller, rural communities in Columbia County access to I-80. The roadway is generally considered as a major collector, except for a small segment that intersects I-80 at Mifflinville which is classified as minor arterial. Route 339 is an important roadway because it provides the southeastern section of Columbia County, which is rural and mountainous, with access to I-80 which extends to Bloomsburg and Berwick. The route is generally narrow and winding, with only two lanes being provided for travel throughout its entire length.

<u>Pennsylvania Route 54</u>: Route 54 is a principal arterial route which runs in an east-west direction through the extreme southern portion of the county providing access to communities within Schuylkill County.

Permetrizamia Route 93: Route 93 travels in a northwest direction with its origins in Columbia County in the Berwick area, terminating in the Borough of Orangeville where it connects to Route 487. Route 93 is important because it provides immediate access for many smaller communities to the Berwick area.

Route 118: Route 118, which traverses the county in an east-west direction, is classified as a minor arterial roadway. Route 118 stretches across the northern portion of Columbia County for approximately 7.4 miles. Regionally, Route 118 connects Williamsport and Wilkes-Barre with the communities of Columbia County, therefore this short segment is an important part of the regional network.

Route 254: Route 254 traverses the northwest quadrant of Columbia County in a northeast to southwest direction. As illustrated in Map 9-1, Route 254 is classified as a collector roadway which services Millville Borough and the adjacent county of Montour. Route 254 runs for approximately 16.67 miles, intersecting three (3) northsouth routes (S.R. 44, S.R. 42, and S.R. 487) which eventually connect with Interstate 80.

Bounce 239: Route 239 travel in a northwest to Southeast direction for approximately 11.96 miles. Route 239 is classified as a major collector which services the Benton Borough area and provides immediate access to S.R. 118 which is an important regional road system that provides access to the Williamsport and Wilkes-Barre MSA's.



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- Route 442: Map 9-1 illustrates Route 442 which is approximately a 3.5 mile segment of roadway classified as a major collector, which traverses the County in a northwest to southeast direction. Route 442 serves as a major collector for Interstate 180 which supplies County residents with direct access to the Williamsport area.
- Route 642: Route 642 travels in a north-south direction for approximately 1.28 miles. Route 642 serves as a major collector which funnels traffic into Route 54, Montour County, which provides access to the Danville area. Therefore, Route 642 serves an important regional function for the County residents who commute to the Danville area for employment and recreational needs.

Legislative Route 2009: Route 2009 is a northwest to southeast roadway which is classified as a major collector. Route 2009 traverses the County for approximately 3.93 miles, and is of local importance as a connecting route between S.R. 487 and S.R. 339.

9.3.3 <u>Traffic Volumes</u>

Current traffic volumes for major thoroughfares within Columbia County have been obtained from the Pennsylvania Department of Transportation Roadway Management Information System. Review of the traffic volumes is an important component of the inventory and analysis of the existing roadway system because traffic count data gives an accurate indication of which roadways have experienced significant increased usage. Furthermore, it will provide a basis from which recommendations for improvements can be made.

The major thoroughfares for Columbia County will be analyzed in terms of traffic volumes by municipality (Refer to Table 9-A). Traffic volumes were analyzed for the following roadway systems in Columbia County:

•	Interstate 80	
• /	U.S. Route 11	
•	Pennsylvania Route	42
•	Pennsylvania Route	44
0	Pennsylvania Route	487
•	Pennsylvania Route	93
0	Pennsylvania Route	118
•	Pennsylvania Route	54
	Pennsylvania Route	339
0	Pennsylvania Route	254
•	Pennsylvania Route	239
•	Pennsylvania Route	442

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Pennsylvania Route 642 Pennsylvania Route 2009

Depresivanta Route 2005

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Pennsylvania Route 339

Interstate 80: Interstate 80 travels in an east-west direction through the municipalities of Hemlock, Bloomsburg, Mt. Pleasant, Scott, South Centre, and Mifflin. In general, average annual daily traffic (AADT) volumes for I-80 average about 11,248 vehicles per day (refer to Table 9-A). Furthermore, the percentage of truck traffic is approximately 26.5% for the active length of the interstate through Columbia County.

The highest daily volume of traffic occurs in the municipalities of Bloomsburg and Mt. Pleasant, at 13,562.5. The highest percentage of truck traffic occurs in Mifflin Township with an average percentage of 30.1. Map 9-2 illustrates that the largest volumes of traffic occur in the municipalities of Bloomsburg, Mt. Pleasant, Scott, and South Centre. Further, this map shows that most motorists are accessing and utilizing I-80 to travel to the Bloomsburg or the Berwick areas. Map 9-2 shows that traffic volumes drop significantly in the township of Mifflin whose boundary lies just after the I-80 and U.S. Route 11 interchange. Thus, it becomes apparent that the general flow of traffic from Bloomsburg to Berwick utilizes I-80 until the U.S. Route 11 interchange where Route 11 can be accessed and traveled directly into the Berwick area. Therefore, it can be assumed that future usage of I-80 within these municipalities will remain substantial and probably increase significantly.

<u>U.S. Route 11</u>: U.S. Route 11 travels locally in an eastwest direction through the municipalities of Montour, Bloomsburg, Scott, South Centre, Briar Creek and Berwick (refer to Map 9-1). U.S. Route 11 has an overall average of traffic volume of 12,229, and an overall truck traffic percentage of 8.2. The total length of U.S. Route 11 through Columbia County is approximately 20.7 miles.

An analysis of traffic volumes for Route 11 shows that the largest daily volume of traffic occurs within Briar Creek Township at 20,242, as well as the largest volume of truck traffic at 12 percent. A 1969 ADT for Route 11 in Briar Creek showed a traffic volume of 10,000 (Clifton and Associates, 1970), this number has more than doubled with an increase of 102.4% since the latest ADT detailed in the Roadway Management Information System in 1985. Thus, it is very apparent that the growth of the greater Berwick area has significantly impacted the usage of Route 11 in this area. It can be assumed that the heavy local usage of Route 11 will continue, and therefore should be addressed in careful detail in the future plan and recommendation section. <u>Pennsylvania Route 42</u>: Pennsylvania Route 42 travels in a north-south direction passing through eleven different municipalities including Centralia, Conyngham, Locust, Catawissa, Montour, Hemlock, Madison, Mt. Pleasant, Greenwood, Millville, and Pine. Route 42 extends through Columbia County a total of approximately 37.9 miles, with the largest segments traversing Locust and Hemlock Townships at 6.5 and 6.3 miles respectively.

Route 42 has an overall average traffic volume of 3,619 and an overall truck traffic percentage of 6.15. The largest traffic volumes are in the municipalities of Millville, Hemlock and Montour, which are in close proximity to I-80. Therefore, a fairly high ADT of 4,882 for the Borough of Millville illustrates that many motorist are utilizing Route 42 as a minor arterial roadway which provides service to large corridors such as I-80. Furthermore, Map 9-2 illustrates increased ADT's in Hemlock, Catawissa, and Montour which depicts Route 42's role as an important roadway system that serves county residents who commute from smaller surrounding communities to Bloomsburg for employment, educational, and recreational purposes.

<u>Pennsylvania Route 44</u>: Route 44 runs for approximately 10.9 miles through Columbia County traversing two municipalities, Hemlock and Madison. In general the average traffic volume for the entire roadway is approximately 1,270 vehicles per day. The highest traffic volumes occur on a small section of the Route in the municipality of Hemlock, with a daily traffic count of 2,117. The truck traffic percentage for Route 44 is approximately 7.0%.

<u>Pennsylvania Route 487</u>: Route 487 traverses Columbia County in a northeast-southwest direction traveling through ten separate municipalities including Sugarloaf, Benton, Stillwater, Fishing Creek, Orange, Orangeville, Scott, Bloomsburg, Catawissa, and Franklin. Route 487 stretches approximately 34.8 miles across Columbia County, with its longest segments of roadway in Franklin and Sugarloaf Townships at 5.6 and 4.9 miles respectively.

In terms of traffic volumes the largest traffic counts can be found in Bloomsburg, Scott, Orange, Orangeville, and Catawissa. Comparatively large ADT's have been calculated in Bloomsburg at 9,741 vehicles per day. Map 9-2 illustrates that the larger ADT's can be found in those municipalities in close proximity to the Bloomsburg area and the Lightstreet interchange at I-80. The distribution of these ADT's illustrates that Route 487 serves much the same purpose as Route 42, except Route 487 services the northeast quadrant of the County rather than the northwest. Therefore, it is apparent that Route 487 plays an important role as a commuter route for communities in the northeast portion of the County who must travel to the Bloomsburg area for various reasons. The significantly low percentage of truck traffic on Route 487 further supports its role as a commuter route within Columbia County.

<u>Pennsylvania Route 93</u>: Route 93 travels through Columbia County for approximately ten miles through five municipalities including Berwick, Briar Creek, North Centre, Orange, and Orangeville. Its largest segment of roadway can be found in North Centre Township at 4.8 miles in length.

In general, traffic volumes on Route 93 are small in comparison to other State Routes within Columbia County. The most significant traffic volumes are found in Berwick and Briar Creek at 5,689 and 3,750 respectively. Thus, Route 93 is classified as a principal arterial within Berwick and a minor arterial within Briar Creek.

<u>Pennsylvania Route 54</u>: Route 54 runs through the extreme southern portion of Columbia County in an east-west direction until reaching Centralia where it takes a north-south direction. Route 54 is approximately 8.2 miles in length as it travels through Columbia County through two separate municipalities including Conyngham and Centralia.

The overall traffic volume for Route 54 is 2,387, with the largest traffic count being found in Centralia at 2,930.5. The truck traffic percentage for Route 54 is approximately 7.0%.

<u>Pennsylvania Route 339</u>: Route 339 runs for approximately 19.9 miles through Columbia County traversing three municipalities including Beaver, Main, and Mifflin. In general the average traffic volume for the entire roadway is approximately 1,500 vehicles per day. The highest traffic volumes occur in the municipality of Mifflin with an average traffic volume of 1,979. This segment of Route 339 has the highest truck percentage with 9.35.

<u>Pennsylvania Route 118</u>: Route 118 passes through Columbia County in an east-west direction, traversing through two municipalities including Jackson and Sugarloaf. Route 118 is a minor arterial under the Maintenance Functional Classification System, and is an important component of the regional and statewide network which connects Williamsport and Wilkes-Barre.

Map 9-2 illustrates that the largest average traffic volumes on Route 118 occur in Sugarloaf Township at 1,559 vehicles per day. Past data has shown that in 1970

traffic volumes on Route 118 were averaging slightly less than 1,000 vehicles per day which translates into an increase in traffic volume of approximately 55.9%. This is a relatively significant increase in traffic volume, and therefore Route 118 should be considered in further detail in regards to future capacity. Furthermore, current data shows Route 118 is a heavily used roadway in terms of trucking and motor freight, with an average truck percent of approximately 13.22.

<u>Pennsylvania Route 254</u>: Route 254 traverses the following municipalities: Madison, Millville, Greenwood, Fishing Creek, and Benton. Traffic volumes increase significantly on those segments of Route 254 within Greenwood, Millville and Madison. The largest volumes of traffic are found on the section of 254 that crosses through the Millville Borough. Map 9-2 shows the Millville segment with a traffic volume of 3,234 vehicles per day. The largest percentage of truck traffic on Route 254 is along the segment which travels through Madison Township at 9.0%.

<u>Pennsylvania Route 239</u>: Route 239 passes through the municipalities of Benton, Sugarloaf, and Jackson Townships. In general, the only significant traffic volumes are along the segment of 239 within Benton Township. The average traffic volumes along this stretch of road is 2,412 vehicles per day. Although portions of this segment of roadway experience volumes that range between 4,000 and 7,500 vehicles per day. The average truck traffic for this portion of the roadway is approximately 8.0%.

Map 9-2 illustrates the large disparity of traffic volume along Route 239 between the associated municipalities. The large volumes of traffic utilizing Route 239 is associated with a fairly significant increase in subdivision activity within the northwest portion of Benton Township. Therefore, it can be assumed that the majority of the traffic using this collector route is a result of recent residential activity. Therefore, an increase in the amount of traffic volume on Route 239 can be expected.

<u>Pennsylvania Route 442</u>: Route 442 crosses through Pine Township in the northwest quadrant of Columbia County. The short segment of Route 442 that travels through Pine Township has an average daily traffic volume of 2,663 vehicles per day. The average truck percentages for this segment of Route 442 is 7.5%.



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<u>Pennsylvania Route 642</u>: Route 642, in Columbia County, is a short segment of roadway found within Madison Township. The average traffic volume for this road segment is 1,275 vehicles per day. The truck percentage is an insignificant part of the traffic volume at 2.0%.

Legislative Route 2009: Route 2009 travels through both Main and Catawissa Townships at a length of appproximately 3.9 miles. The largest traffic volumes are found along the segment in Catawissa Township at 2,690 vehicles per day. The average traffic volume for the entire roadway segment is 2,399. The average truck percentage for Route 2009 is 6.36%.

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KEY CORI	TI RIDOR TRAFFI	ABLE 9-A C VOLUMES	BY MUNICIPALITY	
INTERSTATE 80	0 224		PENNSYLVANIA RO	0.115
	7,334			2,115
• Bloomsburg	13,502	•		2,931
• Mount Pleasant	10 214		DENNOVI VANTA DO	
• South Control	12,314		PENNSILVANIA RO	<u>UTE 44</u>
• South Centre	7 040	. · · ·		1,212
• MITITU	1,040			1,150
				х. ^с
U.S. ROUTE 11	•		PENNSYLVANIA RO	UTE 339
• Montour	8,588		• Beaver	1,141
• Bloomsburg	9,173		🔸 Main	1,424
• Scott	12,023	• '	• Mifflin	1,514
 South Centre 	8,901			
• Briar Creek	20,242			
• Berwick	14,448			а.
•			•	
		н		
PENNSYLVANIA ROUTE	42		PENNSYLVANIA RO	<u>UTE 118</u>
• Centralia	1,067		 Jackson 	1,183
 Conynham 	1,932	•	• Sugarloaf	1,559
• Locust	3,162	•		
• Catawissa	4,198			
• Montour	4,880		PENNSYLVANIA RO	<u>UTE 93</u>
• Hemlock	4,761		• Berwick	5,689
• Madison	4,498		• Briar Creek	3,750
• Mount Pleasant	4,360		 North Centre 	2,289
• Greenwood	4,156		• Orange	1,777
• Pine	1,389		• Orangville	1,910
• Millville	4,882	• .	· .	
PENNSYLVANIA ROUTE	487		PENNSYLVANIA RO	<u>UTE 239</u>
• Franklin	3,431		• Benton	2,412
• Catawissa	5,429		• Sugarloaf	360
• Bloomsburg	9,742	•	 Jackson 	360
• Scott	6,295		· · · · · · · · · · · · · · · · · · ·	
• Orange	7,775		PENNSYLVANIA RO	<u>UTE 442</u>
• Orangeville	6,282		• Pine	2,663
• Fishing Creek	4,319		• Greenwood	2,368
• Stillwater	3,619			
• Benton	3,034		PENNSYLVANIA RO	<u>UTE 642</u>
• Sugarioar	1,121		• Madison	1,275
·			•	`
PENNSYLVANIA ROUTE	254		PENNSYLVANIA RO	<u>UTE 2009</u>
• Madison	2,590		• Main	2,108
• Millville	3,234		• Catawissa	2,690
• Greenwood	1,849			
 Fishing Creek 	993			
Benton	007			

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9.3.4 Accident Analysis

Accident histories for the key roadway corridors in Columbia County were provided by the Pennsylvania Department of Transportation Engineering District 3-0 for analysis as part of the Columbia County Comprehensive planning process. The accident report summary covers a four year period from 1988 to 1992, detailing information for the following roadway corridors: Interstate 80, U.S. Route 11, Pa Route 42, Pa Route 54, Pa Route 93, Pa Route 118, Pa Route 339, and Pa Route 487. Information for all other roadways was not available.

Table 9-B illustrates the accident summary report information is listed by roadway, detailing the number of accidents per year, the percent caused by inclement weather conditions, the percent that occurred in nonadverse conditions, the number of facilities, and the total number of accidents involving some form of injury.

• • •	ACCIDENT/YEAR					NO ADVERSE	ADVERSE	TOTAL	INJURY
Roadway	1988	1989	1990	1991	1992	CONDITION	CONDITION	PATALITIES	ACCIDENT
I-80	62	76	75	51	65	371	631	4	189
V.S. 11	148	170	167	134	142	78	221	. 7	509
S.R. 42	75	98	77	69	. 71	75	251	13	257
S.R. 54	5	Å	2	, ò	2	691	31%	1	10
S.R. 93	28	32	18	· 28	10	841	16 %	2	81
S.R. 118	11	8.	7	8	9	49 1	51%	1	27
S.R. 339	19	14	20	15	13	. 671	33 %	2	52
S.R. 487	90	76	99	85	80	75	25	6	293

TABLE 9-B ACCIDENT SUMMARY REPORT

Source: Pennsylvania Department of Transportation, Engineering District 3-0.

The accident analysis summary report illustrates which roadways have experienced the most number of accidents. U.S. Route 11 had true largest number of accidents with a total of 761 over a four year period. During this time period 7 facilities were recorded, and of the 761 total accidents 509 involved injury of some sort. There may be several reasons for this significant number of acci-dents. Compared to any other State Route in Columbia County U.S. Route 11 experiences the largest volumes of traffic. Therefore, the number of traffic accidents on Route 11 is expected to be higher than any other state route in the County. Furthermore, Route 11 is a fairly long stretch of roadway in Columbia County extending approximately 21 miles in length. Thus, it becomes apparent that the longer the roadway the greater the Thus, it becomes chance for accidents to occur within the County.

Finally, Route 11 will experience more traffic accidents than any other roadway because it is surrounded with commercial strip development which increases substantially the number of turning movement and the number of abrupt stops and starts. Not surprisingly, almost 300 of the 761 accidents were caused by either tailgating, improper turning, or failing to heed stopped vehicles. As previously mentioned in the problem area section of the plan, Route 11 needs to be studied in further detail so that solutions to the lack of highway adequacy can be implemented.

In general, accident occurrences seem to correlate strongly with the average traffic volumes experienced by a roadway and the length of the roadway as it runs through the County. A larger number of accident occurrences are found along roadways that experience significantly high traffic volumes in relation to their design Therefore, higher accident occurrences have capacity. been found along major roadway networks which experience heavy usage such as I-80, Route 11, 42, and 487. The results of the accident summary report information further supports the notion that problem areas do exist along a number of Columbia County's primary roadway corridors. Recommendations for improvements to these major corridors need to be considered in order to assure safe and expedient travel along the major road networks throughout the County.

9.3.5 Problem Areas

An important component of the inventory and analysis of the existing roadway system involves delineating potential and current problem areas that exist within the system. Problem areas may involve those segments of roadway that do not conform to design standards as they are related to traffic volumes. Commonly roadways become congested with restrictive flow when traffic volumes far exceed the roadways design capabilities. There are many other influencing factors that cause problem areas within roadway segments such as truck volumes, turning percentages, speed, traffic interruptions, and freedom to maneuver.

Delineation of potential or current problem areas will be performed by considering several factors including traffic volume counts, truck volume percentages, roadway capacities and design standards, surrounding land use developments (traffic generators), and existing physical deficiencies within the road system. Considering these factors as well as information collected from municipal surveys pertaining to roadway conditions, a general delineation of potential or existing problem areas, within the roadway system, will be performed. The primary state routes currently experiencing traffic problems will be discussed in detail in this section. Further, two routes, Interstate Route 80 and State Route 54 are within standards and therefore are not considered problem areas.

<u>U.S. Route 11</u>: The major problem existing with U.S. Route 11 is the surrounding commercial "strip" development abutting the roadway which produces a large number of turning movements. Several segments of Route 11 which pass through the municipalities of Montour, Bloomsburg, Scott, South Centre, Briar Creek, and Berwick, have been determined as problem areas based on the factors previously mentioned (refer to Map 9-3). As illustrated in Map 9-3 the entire roadway has been cited as a problem area which needs to be studied in further detail so that solutions to the lack of highway adequacy can be implemented.

Priority Areas and Intersections:

- Berwick segment
- Bloomsburg segment
- Briar Creek segment
- Lime Ridge interchange
- Lightstreet interchange
- Montour Township Segment

Pennsylvania Route 42: Current problem areas with Pennsylvania Route 42 exist on segments of roadway which run through several municipalities including Locust, Catawissa, Montour, Bloomsburg, Hemlock, Madison, Mt. Pleasant, Greenwood, Millville, and Pine. Throughout these municipalities current ADT's are exceeding or nearly exceeding design standards for roadway widths determined by the Pennsylvania Department of Transportation (PennDOT). These segments of Route 42 need to be considered for the addition of a third lane and subsequent widening of the roadway. Furthermore, it is expected that traffic volumes will continue to increase on most sections of Route 42 especially in the municipalities of Montour, Bloomsburg, Hemlock, Mt. Pleasant, Madison, and Pine, where land development in terms of subdivisions are significant.

Priority Areas and Intersections:

- Intersection of 42 and 487 Catawissa Twp.
- Hemlock segment
- Bloomsburg segment
- Montour segment
- Pine segment

<u>Pennsylvania Route 44</u>: The greatest problem existing with Route 44 is the width of the roadway. According to PennDOT, due to the amount of truck traffic on the route the roadway should be a minimum of 22 feet in width. Only in a small segment of Route 44 in the municipality of Hemlock is meets this minimum width. Therefore, it is suggested that the entire length of Route 44 be considered as a problem area which should be considered for upgrade.

<u>Pennsvlvania Route 487</u>: Problem areas on Route 487 have been determined to exist in the following municipalities: Catawissa (northern segment), Bloomsburg (southern segment), Orange (northern segment), and Orangeville. Segments of Route 487, within these municipalities, are deficient in terms of roadway width, and are not in compliance with minimum pavement widths criteria set forth by the Pennsylvania Department of Transportation. Route 487 is predominantly a two lane roadway which is experiencing significantly large traffic volumes ranging between five and eleven thousand vehicles per day in certain segments. Furthermore, the municipalities of Bloomsburg, Orange, and Orangeville are experiencing significant residential land use growth which is considered to be a consistent traffic generator.

Priority Areas and Intersections:

- Orange segment
- Orangeville segment
- Catawissa segment

Bloomsburg segment

• Intersection of 487 and 42

<u>Pennsylvania Route 93</u>: As illustrated on Map 9-3, problem areas exist on segments of the roadway travelling through North Centre Township and Orangeville. Pavement widths for these segments of Route 93 are below the criteria standards in relation to current traffic volumes. Furthermore, the municipalities of Orangeville and North Centre are both experiencing residential land use growth which will continue to increase traffic volumes for these roadway segments.

Priority Areas and Intersections:

Route 93 - North Centre (southern segment)

• Route 93 - Orangville segment

<u>Pennsylvania Route 339</u>: Map 9-3 illustrates that several problem areas have been determined for Route 339 within the municipalities of Beaver, Main, and Mifflin. Route 339 is a two lane road system, where pavement widths often reach only sixteen feet. This narrow roadway experiences traffic volumes ranging between 1,000 and 5,000 vehicles per day. Route 339 must be considered for upgrade and improvement.

Priority Areas and Intersections:

• Route 339 - Mifflin (northeast segment)

Route 339 - Main (southwest segment)

Route 339 - Beaver (northwest segment)

<u>Pennsylvania Route 118</u>: Problem areas exist in both Jackson and Sugarloaf municipalities where Route 118 travels in an east-west direction. Route 118 is a two lane roadway with a pavement width of 20 feet. Traffic volumes range from 1,200 to 1,900 vehicles per day with an average truck percentage of 13.2. According to PennDOT's pavement width criteria, Route 118's current traffic volumes exceed acceptable standards. Therefore it is suggested that Route 118, be considered as a problem area which should be carefully monitored.

Priority Areas and Intersections:

• Route 118 - Jackson

• Route 118 - Sugarloaf

<u>Pennsylvania Route 254</u>: Map 9-3 illustrates that a potential problem area has been delineated for a segment of Route 254 in the extreme western portion of Madison Township and travels east for approximately 2.38 miles. This segment of Route 254 does not meet the criteria for minimum pavement widths provided by PennDOT. Traffic volumes for this segment are 1,230 vehicles per day with a truck traffic percentage of 12%. According to PennDOT, pavement widths for roadways operating at this level should be a minimum of 24 feet. This 2.38 mile segment of Route 254 is only two (2) lanes with pavement widths of 20 feet. Problem areas have also been determined for a 9.8 mile segment of Route 254 which begins in Greenwood Township and ends in Benton Township. The average traffic volume for this segment of roadway is 1,421 vehicles per day with some of the highest volumes ranging between 2,700 and 2,300 vehicles per day. This entire segment is a two (2) lane roadway, with pavement widths of only 18 feet. According to PennDOT standards, these pavement widths should range between 22 and 24 feet.

Priority Areas and Intersections:

- Route 254 Madison (extreme western segment)
- Route 254 Greenwood (entire segment)
- Route 254 Fishing Creek (entire segment)
- Route 254 Benton (entire segment)

Pennsylvania Route 239: Problem areas have been devoted on Map 9-3 for certain segments of Route 239 which pass through the municipalities of Benton, Sugarloaf, and Jackson Townships. As illustrated in Map 9-2, traffic volumes for Route 239 in Benton, average approximately 2,412 vehicles per day. The majority of Route 239 in Benton Township, has pavement widths of 20 or 16 feet. According to the criteria and standards, these pavement widths should be widened to 22 feet in order to properly handle traffic volumes of this magnitude. Route 239, beginning in Sugarloaf Township, is a two (2) lane roadway with pavement widths of only 16 feet. Even though the traffic volumes are fairly low, at 360 vehicles per day, PennDOT standards suggest ideal pavement widths of at least 18 feet.

Priority Areas and Intersections:

- Route 239 Benton (entire segment)
- Route 239 Sugarloaf (entire segment)
- Route 239 Jackson (entire segment)

<u>Pennsylvania Route 442</u>: A small segment of Route 442, at the extreme southern portion of the roadway where it intersects with PA Route 42, has been determined as a potential problem area. Traffic volumes for this segment of roadway averages approximately 2,368 vehicles per day, and truck traffic percentages are significantly high at 21%. This small segment of Route 442 is a two (2) lane roadway with a pavement width of 22 feet. This area should be considered for improvements such as widening to suitably handle the significantly high volume truck traffic on this segment of Route 442.



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Priority areas and Intersections:

Intersection of 442 and 42 (Pine and Greenwood)

<u>Pennsylvania Route 642</u>: Map 9-3 illustrates that the entire segment of Route 642 has been determined as a problem area. According to standards, Route 642 should be widened so that pavement widths are 20 feet. With current traffic volumes at 1,275 vehicles per day, Route 642, which is now a two (2) lane roadway with 18 foot pavement widths, should be upgraded to 20 foot pavement widths.

Priority Areas and Intersections:
Route 642 - Madison (entire segment)

Legislative Route 2009: Route 2009 is a two (2) lane roadway with pavement widths of 18 feet. The route has been classified as a major collector, and currently handles traffic volumes that average between 2,100 and 2,700 vehicles per day. Problem areas have been determined for the segments of roadway traveling through both Main and Catawissa Townships. At the current AADT's for Route 2009, pavement widths should be of a minimum of 20 feet.

9.4 <u>Bridges</u>

Covered bridges are an important part of Columbia County's transportation system, as many of the covered bridges are still in operation. Pennsylvania's third largest concentration of covered bridges can be found in Columbia County. Presently, there are nineteen (19) covered bridges within Columbia County, and four (4) which lie on the Northumberland County border.

Aside from their functional use, the covered bridges of Columbia County have an important historical and cultural value. The East and West Paden covered bridges are two of the best known because they are the only twin covered bridges in the United States. Map 9-4 shows the twin bridges which are located in Fishing Creek Township, crossing Huntingdon Creek, east of Pa Route 487. The twin bridges have been by-passed for many years, and since have been preserved in a park and are now used for picnic pavilions. The wooden covered bridges of Columbia County serve as a beautiful reminder of the County's rich historical past.

Columbia County has a significantly large number of creeks and streams which flow through the County and eventually feed into the Susquehanna River. Therefore, bridges become an integral component in the County's transportation system, and maintaining these bridges is necessary to ensure the efficient
flow of goods, people, and services,. There are fifty-one (51) County owned bridge structures, most of which are constructed with concrete or steel (Refer to Map 9-5).

Typically, a majority of funding for the up-keep and maintenance of County owned bridges is obtained by the County through Pennsylvania's Liquid Fuels Program. Annually, the County receives an amount of money, based upon a formula, earmarked for up-keep and maintenance of County bridges. In addition, there is currently a separate grant available under the liquid fuels program for larger, more expensive reconstruction projects. This grant provides 75% funding with a 25% local match requirement.



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9.5 Public Transit Services

Presently two (2) bus lines operate long distance service available to County residents. The Eastern Greyhound lines have regular stops in Berwick and Bloomsburg on a Syracuse, New York to Washington, D.C. route, much of which is over U.S. Route 11. The other line, Edwards Motor Transit Company, is a division of Continental Trailways and has daily stops in Berwick and Bloomsburg. This bus route travels over a combination of Interstate 80, U.S. Route 11 and Pennsylvania Routes 93 and 487.

9.6 <u>Rail Transportation</u>

Railroad passenger service is not available in Columbia County, residents within the County wishing to travel by rail can access passenger service at the Harrisburg Train Station.

Freight transportation by rail is available at Bloomsburg via the North Shore Railroad and at Catawissa via the Delaware and Hudson Line. The North Shore Railroad extends for 36.5 miles, from Northumberland to Berwick. Since, the North Shore Railroad began operation in August of 1984, rail traffic has several industries in Columbia County to use the North Shore Railroad to move goods both in-bound and out-bounds. Table 9-C enumerates the companies that utilize the North Shore Railroad for shipment of goods. Map 9.6 illustrates the existing railroad right-of-way lines.

TABLE 9-C

COLUMBIA COUNTY COMPANIES SERVED BY THE NORTH SHORE RAILROAD, 1993

NORTE SHORE RAILROAD	IN-BOUND	OUT-BOUND
Agway-Almedia	Agricultural Products	
AC £ F	Steel	Railcare
Bercon Packaging	Plastic Resin	
Berwick Forge & Pabricating	Steel	
Bloomsburg Craftsmen	Printing Papers	
Brandt's Mill	Grain	
Champion Valley Farms	Grain	Pet Pood
DataCom	Printing Papers	
Pahringer Distributors	Lumber	
Magee Carpet Company	Plastic Resin	Automotive Carpets
Mohawk Flush Doors	Lumber Products	
Pa. Power & Light	Power-Generating Equipment	•
Wickes Lumber	Lumber	·
Wise Foods	Grain, Vegetable Oil	,

Source: SEDA Council of Governments (COG).

The SEDA-COG Joint Rail Authority has taken on the task of public rail line preservation in Central Pennsylvania. The Joint Rail Authority, which includes the counties of Centre, Clinton, Columbia, Montour, Northumberland, and Union, has claimed many rail lines that have been abandoned by Conrail. The Authority owns four (4) separate rail lines which include North Shore Railroad, Nittany and Bald Eagle Railroad, Shamokin Valley Railroad, and the Bald Eagle Branch Extension. Currently, the Authority owns 131.4 miles of rail lines within Central pennsylvania. Funding for the Authority has come from all levels of government as well as private, rail-dependent industries.

9.7 <u>Air Transportation</u>

Air Service in Columbia County is limited. There are no commercial airlines currently serving the area. Commercial airline services must be accessed at the Williamsport, Hazleton, and Wilkes-Barre/Scranton airports. Although, if scheduled in advance, the Williamsport Airport will arrange for stops at the Bloomsburg Municipal Airport. Services at the Williamsport Airport are provided by U.S. Air Express and it flies direct to Philadelphia or Pittsburgh. Allegheny, Eastern, U.S. Air, Delta, Altair, and Pocono Airlines provide services the Wilkes-Barre/Scranton Airport. At the Hazleton Airport, Pocono Airlines operates a commuter service through a contractual arrangement with Allegheny Airlines.

The Bloomsburg Municipal Airport provides a small-craft charter service for Columbia County residents. The airport is utilized predominantly by privately owned aircrafts and some business aircrafts. The Bloomsburg Municipal Airport functions mainly as a engine repair and maintenance service station for Lycoming and Continental Airlines. Furthermore, they provide charter and air freight services, as well as student instructions for small-crafts.

The Bloomsburg Municipal Airport currently has a paved runway that is 2,800 feet in length by 50 feet in width. Improvement plans for the airport have been set forth by the Pennsylvania Department of Transportation. Land acquisition and easement for right-of-way has been proposed in order to extend the existing runway.

There are five (5) private airfields located within the County - Alberston Field near Millville, Mensch Field in Cleveland Township Watkins Air Strip near Millville, Beaver Air Strip near Numidia and Yohey Field at the Stone Castle Motel in Montour Township. These airports are not available for public use.



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9.8 <u>Improvement Plans</u>

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, effective December 18, 1991, has provided and will continue to provide authorization for many of Pennsylvania transportation projects. Overall a total of approximately \$155 billion will appropriated during fiscal year 1992-1997.

The purpose of ISTEA is enunciated in its statement of policy:

"to develop a National Internodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the Nation to complete in the global economy and will move people and goods in an energy efficient manner."

A few of ISTEA's titles may directly affect Columbia County, they are as follows:

<u>Title I</u> - Surface Transportation: This title covers matters relating mainly to highways, generally administrated by the Federal Highway Administration (FHWA). Authorizations of \$121 billion are provided through this title.

Several programs under this title may apply directly to Columbia County. The National Highway System the Interstate System, the Bridge Replacement and Rehabilitation Program, the Service Byways Program, and the National Recreational Trails Funding Program.

<u>Title II</u> - Highway Safety: The non-constructive highway safety programs, which are covered under this title, are generally administrated by the National Highway Traffic Safety Administration (NHTSA) and FHWA. A total of \$1.6 billion is authorized.

Specific to Columbia County, the State and Community Grants -402 program issues guidelines on speed limits, occupant protection, impaired driving, motorcycle safety, school buses, law enforcement services, and the collection and reporting of data on traffic related deaths and injuries.

Transportation improvement plans for Columbia County have been set forth in the most recent twelve (12) year transportation program (1990 - 2002) created by the Pennsylvania Department of Transportation. This program plans improvements to correct roadway and bridge deficiencies within Columbia County. The twelve (12) year program is divided into three (3) phases: first four years, second four years, and third four years. Recommended improvements are summarized below into the three (3) phases (1992-1996, 1996-2000, and 2000-2004). Since the release of PennDOT's 1990 - 2002 Plan, some projects have been completed. The list of completed projects or contracts that have been awarded are as follows:

- PA Route 2017 Mifflinville Borough over Susquehanna River Tributary (Mifflin Township) - Bridge Replacement, completion date - Summer, 1990.
- US Route 11 (Park Road) Berwick to Briar Creek Township widen to 36 feet, completion date - 6/17/92.
- PA Route 42 Bridge over I-80 at Buckhorn (Hemlock Township) - Bridge Rehabilitation, expected completion date - 10/22/94.
- Interstate 80 Columbia County Bridges over S.R. 42 and T-488 (Scott Township/Bloomsburg) - Deck Replacement, completion date - 5/29/93.
- PA Route 254 Green Creek Bridge over Green Creek (Greenwood Township) - Bridge Replacement, completion date - 11/12/92.
- PA Route 2017 Mifflinville Bridge over Susquehanna River Tributary (Mifflin Township) - Bridge Replacement, completion date - Summer, 1990.
 - PA Route 2028 Mifflinville River Bridge over Susquehanna River (South Centre Township) - Bridge Replacement, expected completion date - 8/30/94.
 - PA Route 1019 Little Briar Creek Bridge over Little Briar Creek (Briar Creek Township) - Bridge Replacement, contract pending.
 - PA Route 4011 Mud Run Bridge over Mud Run (Greenwood Township) - Bridge Replacement, contract pending.

However, projects which are on PennDOT's 1990-2002 Plan which have yet to be completed include the following:

<u>1992 to 1996</u>: Recommended Bridge Improvements

- PA Route 93 over tributary to Briar Creek (North Centre Township) - Bridge Rehabilitation
- Legislative Route 2028 Mifflinville Bridge over Susquehanna River (South Centre Township) - Bridge Replacement
- Legislative 'Route 4011 Mud Run Bridge over Mud Run (Greenwood Township) - Bridge Replacement
- Legislative Route 4049 West Branch Fishing Creek Bridge over West Branch Fishing Creek (Sugarloaf Township) -Bridge Replacement

- Route 9900 Briar Creek Bridge over Briar Creek (North Centre Township) - Bridge Replacement
- Route 9900 Catawissa Creek Bridge T-413 over Catawissa Creek (Main Township) - Bridge Replacement
- Route 9900 Ricketts Street Bridge over a tributary of Fishing Creek (Orangeville Borough) Bridge Replacement
- Route 9900 Catawissa Creek Bridge T-480 over Catawissa Creek (Main Township) - Bridge Replacement
- Route 1019 Little Briar Creek Bridge over Little Briar
 Creek (Briar Creek Township) Bridge Replacement
- Route 9900 T-757 Fishing Creek Bridge over East Fishing Creek (Sugarloaf Township) - Bridge Replacement
- Route 1026 Little Pine Creek Bridge over Little Pine Creek (Fishing Creek Township) - Bridge Replacement
- Route 3014 Catawissa Creek Bridge over Catawissa Creek (Catawissa Borough) - Bridge Replacement
- Route 9900 Train Street Bridge over Fishing Creek (Town of Bloomsburg) Bridge Rehabilitation
- Route 9900 Hollingshead Bridge over Catawissa Creek (Catawissa Township) - Bridge Rehabilitation

Recommended Highway Improvements

- U.S. Route 11 (Town of Bloomsburg) Signal Improvement
- I-80 Restoration (Columbia County line to Exit 35) -Restoration
- U.S. Route 11 Park Street to Central Road (Bloomsburg)
 Widen to 52'

Recommended Rail Improvement

 Canadian Pacific - Rehabilitate track and bridges on former D & H Line

Recommended Airport Improvements

- Bloomsburg Airport Land acquisition and easement for right-of-way
- Bloomsburg Airport Construct T-Hangars
- Bloomsburg Airport Clear zones, approach protection

<u>1996 to 2000</u>: Recommended Bridge Improvements

- PA Route 4011 Mud Run Bridge over Mud Run (Greenwood Township) - Bridge Replacement
- Route 93 Briar Creek Bridge over Briar Creek (North Centre Township) - Bridge Replacement
- Ricketts Street Bridge over tributary of Fishing Creek (Orangeville Borough) Bridge Replacement
- Catawissa Creek Bridge T-468 over Catawissa Creek (Main Township) - Bridge Replacement
- Briar Creek Bridge over North Branch of Briar Creek (North Centre Township) - Bridge Replacement

2000 to 2004: Recommended Bridge Improvements

- PA Route 1019 Little Briar Creek Bridge over Little Briar Creek (Briar Creek Township) - Bridge Replacement
- PA Route 1026 Little Pine Creek Bridge over Little Pine Creek (Fishing Creek Township) - Bridge Replacement
- PA Route 4024 Little Fishing Creek Bridge over Little Fishing Creek (Pine/Greenwood Township) - Bridge Replacement
- PA Route 1022 Green Creek Bridge over tributary of Green Creek (Greenwood Township) - Bridge Replacement
- PA Route 1026 Little Pine Creek over Little Pine Creek (Fishing Creek Township) - Bridge Replacement
- PA Route 3010 Roaring Creek Tributary Bridge over tributary to Roaring Creek (Cleveland Township) - Bridge Replacement
- PA Route 3014 Catawissa Creek Bridge over Catawissa Creek (Catawissa Borough) - Bridge Replacement
- PA Route 4049 West Branch Fishing Creek over West Branch Fishing Creek (Sugarloaf Township) - Bridge Replacement
- T-730 West Branch Briar Creek Bridge over West Branch Briar Creek (North Centre Township) - Bridge Replacement
- Route 487 Light Street Bridge over I-80 (Scott Township) Bridge Deck Replacement
- Route 487 Fishing Creek Bridge over Fishing Creek (Stillwater Township) - Bridge Replacement

9.9 Summary of Findings and Conclusions

The highway and motor vehicle have become essential elements in the transportation of goods, people and services. Therefore, it is necessary to ensure that the existing roadway network is capable of providing safe, direct and efficient travel. Furthermore, the economic stability, growth, and development of a community is directly dependent on the existing transportation system in place.

Regionally, Columbia County is well served by its existing roadway metwork. The roadway metwork consists of two (2) primary east/west corridors with U.S. Route 11 and Interstate Route 80 which travel through the County's midsection. Regionally, U.S. Route 11 is a north/south corridor but locally it provides travel in an east/west direction. These primary roadways are intersected by several north/south corridors which provide immediate access to the major urban centers of Bloomsburg and Berwick. I-80 is a four-lane divided highway built to specifications that allow it to handle significant volumes of passenger vehicles and motor freight. Currently, I-80 provides adequate service to residents of the County.

The updated comprehensive plan has inventoried and analyzed the existing primary roadway network by delineating each roadway into its appropriate functional classification, analyzing current traffic volumes and delineating potential or current problem areas based on stated criteria. Tt has been found that traffic volumes have increased substantially, and many of the primary state routes within the County are operating at levels within recommended standards. As a result, it has become apparent that several roadways are in need of physical improvements in order to accommodate the increasing traffic volumes. As noted in the problem area section, Route 11 and several other adjacent access roads such as Routes 42, 487, 44 and 339 are in need of maintenance and improvements. These access roads serve primarily as "feeders" for the primary corridors of U.S. Route 11 and I-80, and experience the highest propensity of accidents. Traffic flows to these primary corridors need to be improved. Other areas requiring improvements are Routes 93, 54, 118, 254, 239, 442, 642, 642 and 2009.

The recent PennDOT twelve year plan has outlined a number of transportation improvements for Columbia County. The majority of the scheduled improvements are intended to correct bridge deficiencies. These improvements are scheduled through the year 2004. No additional bridges were identified for planned improvements. The public transit service of Columbia County involves two long distance bus services which can be accessed at Bloomsburg or Berwick. These bus services include the Eastern Greyhound Lines and the Edwards Motor Transit Company.

Rail transportation in Columbia County includes only the movement of goods in-bound and out-bound. Currently, railroad passenger service is not available in Columbia County. Such services can be accessed at the Harrisburg Train Station. SEDA-COG Joint Rail Authority has played an important role in preserving rail lines in Columbia County and the surrounding area of Central Pennsylvania. The Authority owns four separate rail lines totalling approximately 131.4 miles of track.

Air service in Columbia County is limited. There are no commercial airlines currently serving the area. The closest commercial airlines are available in Wilkes-Barre and Williamsport, PA. The Bloomsburg Municipal Airport functions mainly as a repair and maintenance station, but does supply county residents with a small-craft charter service. The Bloomsburg Municipal Airport has a paved runway that is 2,800 feet in length by 50 feet in width. Improvement plans for the airport have been scheduled by PennDOT.

10. COUNTY ADMINISTRATION AND FINANCES

CHAPTER 10

COUNTY ADMINISTRATION AND FINANCES

10.1 Introduction

County governments perform two types of administrative functions - those which the state requires of them and those which the state permits, but the County is not required to Most of the County functions fall into the first perform. category. The mandatory functions typically include some responsibility for the maintenance of law and order, the administration of justice, the care of prisoners, the care of dependent and neglected children and the elderly, the conduct of elections, the laying out and upkeep of bridges and roads, the recording of deeds and certain other documents, the settlement of estates, the advancement of agriculture and some phases of public school administration. The extent to which the state assigns these functions to the counties rather than carrying them out directly varies widely from state to state.

Nationwide, many of the traditional functions of county government are being supplemented by more urban type services which in the past have been considered functions of municipal government. New legislative mandates and increases in population density and migration to the suburbs have resulted in a variety of new service needs including solid waste planning, job training, recreation, emergency medical care, urban renewal, housing, mass transit and a variety of other needs. Columbia County has assumed in part many of these responsibilities as part of its new emerging role.

Typically, many of these programs are dependent on revenues provided directly from State and Federal programs which are indirectly financed by all residents. In order for any county to plan and realistically program specific services for its residents, the Board of County Commissioners must be acutely aware and sensitive to budgetary considerations.

10.2 <u>Governmental Structure and Administration</u>

In accordance with the County Code of Pennsylvania, Columbia County is a County of the 6th Class, which is defined as having a population of 45,000 or more, but less than 90,000. As such, Columbia County is required to have the following officers elected by the qualified electors of the County:

- * Three County Commissioners;
- * Three auditors or, in all counties where the office of auditor has been or shall be abolished, one controller;
- * One treasurer;
- One coroner;
- One recorder of deeds;
- One prothonotary;
- * One clerk of the court of quarter sessions and of the court of over and terminer;

- * One clerk of the orphans' court;
- One register of wills;
- * One sheriff;
- * One district attorney; and
- Two jury commissioners;

This chapter reviews the administration of government within Columbia County, illustrates the organizational structure of Columbia County, presents a narrative of each department and its functions and reviews the County's revenues and expenditures.

10.3 <u>Elected Officials</u>

Figure 10.1 illustrates the current organizational structure for Columbia County. The following sections identify the functions and responsibilities of each County office or department. It reflects both elected and court-appointed officials.

10.3.1 <u>Commissioners</u>

The commissioners are the County's policy-makers. Typical responsibilities of the Board of County Commissioners are:

- to supervise, direct and control the administrative services and departments of the County in accordance with the County charter and local laws;
 - to see that County officers, boards, agencies, commissions and departments faithfully perform their duties;
 - to make studies and investigations in the best interests of the County, to compel the attendance of witnesses, and (if necessary) to examine the books, records, or papers of County agencies to ascertain facts in connection with any study or investigation; and

 adopt resolutions and ordinances prescribing the manner in which powers of the County shall be carried out and generally regulating the affairs of the County.

10.3.2 <u>Chief Clerk</u> - The Chief Clerk is required to maintain the books and accounts of the Board of County Commissioners, record and file their proceedings and papers, attest all orders and voucher checks issued by them and perform all other duties pertaining to his/her office as chief clerk. The Chief Clerk also has the power to administer oaths and affirmations, pertaining to the business of the office of the County Commissioners.

10.3.3 Prothonotary

The Prothonotary serves as the administrative office for criminal and civil litigation within the County.

10.3.4 Register and Recorder

Maintains records of real property transactions within the County (mortgages, deeds, subdivision plans) and wills of deceased citizens of the County.

10.3.5 <u>Treasurer</u>

The County Treasurer is charged with the responsibility of receiving County monies from all sources. The treasurer deposits County funds in banks and keeps records of revenues and bank balances. The treasurer may also keep records of the expenditures, revenues, and balances of County funds.

10.3.6 Sheriff

The Office of Sheriff is responsible for serving legal papers (civil suits), issuance of firearm licenses (pertaining to carrying a handgun), transporting and maintaining custody of prisoners during legal proceedings, and administration of executions on real and personal property.

10.3.7 <u>Coroner</u>

When a physician is not in attendance the coroner is called upon to determine the cause of death. Before preparing an official report of findings, the coroner usually examines the body, may have an autopsy performed, and may assemble a jury to conduct an official inquest.

10.3.8 District Justice

The District Justice hears civil actions under \$4,000, including motor vehicle violations, landlord-tenant cases, and holds preliminary hearings in criminal matters.

10.3.9 District Attorney

The responsibilities of the District Attorney include signing all bills of indictment and conduct in court all criminal and other prosecutions.

FIGURE 10.1

ELECTED OFFICIALS



10.4 Appointed Department Heads

Figure 10.2 illustrates an organizational chart for the County Commissioner appointed offices. In addition, the following sections identify the responsibility of each of the appointed department heads.

10.4.1 Public Defender

The Office of Public Defender is responsible for the representation of the indigent in criminal proceedings.

10.4.2 <u>Solicitor</u>

The County solicitor is required to commence and prosecute all suits brought, or to be brought, by the County, wherein or whereby any rights, privileges, properties, claims or demands of the County are involved, as well as defend all actions or suits brought against the County, and shall perform all duties now enjoined by law upon County solicitors, and shall do all and every professional act and render legal advice incident to the office which may be required of him by the County Commissioners.

10.4.3 Assessment

The Office of Assessment has the responsibility for appraising or setting the value of all property subject to County property taxes. The assessor has extensive maps of all parcels of property in the County and records the physical characteristics and value of all buildings. When a new building is constructed, the assessor and his/her staff will usually know of this from the issuance of the building permit and will make an inspection to determine the assessed valuation.

The assessor is frequently responsible for sending out notices of assessment to property owners so they may have the opportunity to challenge the assessment if they think it is excessive. This official also sends out tax notices.

10.4.4 Job Training Partnership Act (J.T.P.A.)

J.T.P.A. is a Federally funded job training program for economically disadvantaged individuals and displaced workers.

10.4.5 Tax Claim Bureau

The Tax Claim Bureau handles all matters regarding the collection of delinquent taxes for the County.

10.4.6 Voter Registration

The primary purpose of Voters Registration is to process and maintain voting records for Columbia County.

10.4.7 Elections

The Office of Elections is responsible for holding elections as well as tabulating the results.

10.4.8 Emergency Communications (E.C.C.)

The Office of Emergency Communications handles all medical, fire, and public safety communications throughout Columbia County.

10.4.9 Emergency Management Agency (E.M.A.)

The Emergency Management Agency (E.M.A.) is responsible for the judicious planning, assignment and coordination of all available resources in an integrated program of prevention, mitigation, preparedness, response and recovery for emergencies of any kind, whether from attack, man-made or natural sources.

10.4.10 <u>Central Telephone Service</u>

Central Telephone Service receives all phone calls directed to Columbia County and distributes each call to the appropriate agency.

10.4.11 Tourism

The Department of Tourism is responsible for promoting Columbia County as a tourist attraction.

10.4.12 Corrections

The Department of Corrections is responsible for the operations of the Columbia County Prison.

10.4.13 Payroll and Budgeting

The Office of Payroll and Budgeting is responsible for issuing payroll checks and budgetary disbursements.

10.4.14 Office of Planning and Development

The Office of Planning and Development is responsible for the administration of various programs and activities such as land development, solid waste management planning, stormwater management, and ordinance and planning document preparation and review.

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10.4.15 Microfilming

The Office of Microfilming is responsible for microfilming outdated records for storage.

10.4.16 Adult Probation

The purpose of Adult Probation is to monitor and supervise adults who are on probation or parole.

10.4.17 Juvenile Probation

The purpose of Juvenile Probation is to monitor and supervise juveniles who are on probation or parole.

10.4.18 Adult Welfare

The Adult Welfare Department is responsible for the care of indigent adults.

10.4.19 Agency on Aging

The Agency on Aging investigates all complaints regarding the care of elderly individuals.

10.4.20 Children and Youth

The functions of this department include: providing services to dependent children and youth; the investigation of reports from parents, teachers, and police of children and youth and determine if services should be provided; schedule hearings; monitor children and youth outside the home; and the provision of direct care services.

10.4.21 <u>Day Care</u>

The Day Care Services are subcontracted to outside agencies who provide day care services to individuals working for Columbia County.

10.4.22 Mental Health/Mental Retardation

Mental Health/Mental Retardation services are subcontracted out to agencies who provide case management and intensive case management to individuals with mental disabilities.

10.4.23 <u>Veterans Affairs</u>

The Office of Veterans Affairs provides a variety of health and social services to U.S. military veterans.

10.4.24 Domestic Relations

The functions of the Domestic Relations Department include running the child support unit which monitors, enforces, and collects child support alimony and collects fines, costs, and restitution.

10.4.25 Bridges

The Bridges Department is responsible for the maintenance and upkeep of all County owned bridges.

10.4.26 Maintenance

The Maintenance Department provides the basic maintenance, repairs, and upkeep of County buildings and facilities, including day-to-day janitorial services.

10.4.27 Parks

The Parks Department is responsible for the upkeep and maintenance of the County owned parks.

10.4.28 Victim-Witness

This office provides comfort to victims and witnesses during court trials.



* E.C.C. and E.M.A. will be merging into one (1) department - Public Safety.

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10.5 <u>County Budgeting and Finance</u>

Figure 10.3 illustrates Columbia County's Revenues and Expenditures by budget year for 1988 to 1993. Figure 10.4(a) and 10.4(b) illustrates Columbia County's 1993 budgeted revenue and expenditures for 1993 as a percentage of the total budget.

10.5.1 <u>Expenditures</u>

Historically, the Human Services Department has been the largest expenditure of all departments within Columbia County. Funding for Human Services has increased nearly 60% since 1988. It is anticipated that this budgetary trend will continue. Human Services expenditures include activities involved in the conservation and improvement of public health, the provision of public education, drug and alcohol programs, institutional care, etc. With the Human Services Department is the Children and Youth Program. Since 1991, funding for Children and Youth Services has increased by 44 percent. For 1993, Child and Youth Services has been allocated 1.5 million dollars, accounting for nearly 1/4 of the 1993 Human Services Budget.

Since 1988, budgetary issues in Columbia County have included the 1990 bond issue which was implemented to provide reassessment of all County owned property along with a means for creating a 911 program. The process was to begin by purchasing a building for expansion. A building has been located and is being considered for this task. The program will continue into 1994 by which time the expansion will be finished. Furthermore, by 1994, basic 911 service should be set up, and by 1995, the data base and GIS system will be finished, completing the implementation of 911. Additional expenditures for 911 will come from a proposed \$1.50 monthly telephone charge. It is expected that there will be a need for 14 full time employees for 911, two (2) full time for each shift.

It is anticipated that a prison expansion, as well as additional funding for the Children and Youth Services will be of primary concern in future budgetary considerations.

10.5.2 <u>Revenue</u>

The primary source of revenue generated in Columbia County is from taxes. Tax revenue has increased by 51.7% since 1988, this increase is a direct result of tax and population increases. As depicted on Figure 10.4(a), in 1993, taxes made up 41.6% of the 10 million dollars of revenue raised by the County. These taxes include real property tax, per capita tax, and personal property tax. Intergovernmental revenues are the next leading contributor to total revenue at 18.6% for the budgeted year 1993. Intergovernmental revenues are considered revenues from other governments in the form of operating grants, capital grants, entitlements, shared revenues, or payments in lieu of taxes.

The budgeted amount of intergovernmental revenues for 1993 decreased by 16.2% from 1990. This decrease was compensated for by increasing taxes in 1993, a 20.1% increase from 1992.

Real property tax is the largest contributor to tax revenue. The ratio of real property tax revenue to other taxes is 9.41 to 1, indicating that for every dollar of other taxes collected, \$9.41 is collected in real property tax.

In terms of grant funding, Columbia County budgeted for 1993 a total of \$1,600,460 a decrease of 8.0 percent from 1992. Grants budgeted for 1993 account for 22.9% of the total budgeted revenue of Columbia County. The decrease represents the elimination of the District Magistrate Fund which amounted to \$120,000, along with \$110,000 in Judicial Funds.

The largest grant budgeted for 1993 is the Child Services Act 148 Grant which amounts to \$743,013, which accounts for 46.4% of the total budgeted grant revenue.

Departmental earnings also have a significant impact on Columbia County's revenues. In 1993, nearly \$1,200,000 departmental earnings were budgeted for 1993, accounting for 17.1% of the total budgeted revenues for 1993. Two (2) departments, Register and Recorder and District Justices, account for 40.2% of the total budgeted departmental earnings for 1993.

Figure 10.3



REVENUE AND EXPENDITURES 1988 - 1993





Source: 1993 Columbia County Annual Budget.

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10.6 Summary of Findings and Conclusions

Columbia County's traditional administrative functions are being supplemented by more urban types of services which include solid waste planning and recycling, job training, recreation, air and water pollution control, emergency medical care, urban renewal, housing, mass transit and a variety of other needs. These new administrative tasks are the result of new federally mandated programs of which the State delegates administrative responsibility to the Counties.

These new administrative roles have made Columbia County dependent upon receiving Federal and State grant funds. To date, nearly 23% of the total budgeted revenue for 1993 was received from grant awards. Other sources of budgetary revenue include real property tax, per capita tax, and a personal property tax. In combination, taxes accounted for approximately 41.6% of all County budgetary revenue.

The primary expenditures of Columbia County were for programs provided by the Human Services Department and the Corrections Department. Future capital expenditures are anticipated to be used for the expansion of the County prison and the implementation of an emergency communication system (911).

11. COMMUNITY GOALS AND OBJECTIVES

CHAPTER 11

COMMUNITY GOALS AND OBJECTIVES

11.1 <u>Introduction</u>

A Comprehensive Plan is required by the Pennsylvania Municipalities Planning Code (PaMPC) to develop a statement of Community Development Goals and Objectives. This statement of goals and objectives will enable Columbia County and municipal officials to develop policies and make decisions with regard to future land use, community facilities and infrastructure in a consistent and impartial manner. This statement of goals and objectives becomes the basis for recommendations regarding County actions affecting development, conservation, and infrastructure improvements.

The evolution of these Community Goals and Objectives began in January of 1992 when the Columbia County Commissioners requested several groups and individuals to provide input to develop a long range plan for Columbia County. After this initial meeting and review of ways to initiate a planning process the County Commissioners decided to proceed with a Columbia County "Needs Assessment Forum."

Nearly 45 individuals were invited to attend a "mini-forum" on March 13, 1992 at the Magee Center. The forum process was utilized to identify the key issues impacting Columbia County. Strategies were also developed for obtaining participation in the forum. A goal was established of having over one hundred Columbia County citizens and officials attend a "Needs Assessment Forum" during April, 1992.

On April 29, 1992 the Penn State Cooperative Extension of Columbia County, in cooperation with the Columbia County Commissioners and Bloomsburg University, conducted the "Needs Assessment Forum" to obtain input on county residents' perceptions concerning the future direction and needs of Columbia County.

The "Needs Assessment Forum" lead to the development of an eleven (11) member Long Range Steering Committee. The purpose of this Long Range Steering Committee was to serve as an entity which could provide guidance to the County in terms of long range planning for the five (5) key issues impacting the County as identified at the "Mini Forum". These five (5) issues included the environment, the local youth, quality of life, economic well-being, and intergovernmental cooperation. These issues and the Long Range Steering Committee's goals and objectives will be discussed in greater detail later in this report. Realizing the need for long range planning, the Board of County Commissioners charged the Columbia County Office of Planning and Development with the responsibility of overseeing the development of an update to the County's 1970 Comprehensive Plan. The initial step in this update process was to find adequate financing for the project. Therefore, the County Office of Planning and Development applied for and received Community Development Block Grant (CDBG) and State Planning Assistance Grant (SPAG) funds, both of which are administered under the auspices of the Department of Community Affairs. The total of both grant awards equaled \$15,500 to partly fund the completion of a Comprehensive Plan Update.

Understanding the time, effort and input necessary to complete this type of project, the County Commissioners realized the need to garner the assistance of community residents, as well as a private consultant specializing in this type of planning. Thus, the County Commissioners formed a sixteen (16) member Comprehensive Plan Advisory Committee composed of residents of different professions from throughout the County and solicited the services of Nassaux-Hemsley, Inc.

The purpose of the Comprehensive Plan Advisory Committee was to assist the County Office of Planning and Development and Nassaux-Hemsley, Inc. in the development of Background Studies, Community Goals and Objectives, and Planning Recommendations. Three (3) components would encompass the entirety of the work tasks involved in updating the County's Comprehensive Plan. In addition, as part of this planning process, the Comprehensive Plan Advisory Committee met on a monthly basis and served to review and comment on all work completed by the County Office of Planning and Development as well as Nassaux-Hemsley, Inc.

Simultaneous with the completion of the above referenced background studies was the distribution, collection and analysis of a community survey identifying needs perceived by various groups throughout the County. Groups surveyed included municipal officials and County business and industrial leaders.

The purpose of these surveys was to elicit public participation and input from citizens representing every interest and geographical portion of the County. The results of these surveys have been tabulated and analyzed in this Chapter. The results and findings of these surveys have been used to modify and revise the preliminary goals and objectives to appropriately embody and represent the wants and aspirations of Columbia County as a whole.

11.2 Needs Assessment Forum

During the "Needs Assessment Forum" three objectives were established as follows:

- To discuss emerging social, economic and demographic trends in the County;
- To obtain citizen and elected official's input concerning priorities among key issues; and
- To develop ideas for dealing with priority concerns.

A brief overview of current economic, social, demographic, environmental and agricultural trends in the County was presented by Guy Temple, Extension Community Development Agent, Penn State University. After the overview, the participants were divided into ten (10) groups to focus on one of the five (5) key issues identified in Columbia County. They were:

- Issues important to the environment;
- Issues important to local youth;
- Issues important to the quality of life for individuals and families;
- Issues affecting the economic well-being of County residents; and
- Issues relating to cooperation and collaboration within the County.

Each group defined the problems within the areas, placed priorities on those areas identified, and then developed several possible solutions to those priority concerns.

The following lists the problems perceived to exist within Columbia County and the solutions discussed by the focus groups of the "Needs Assessment Forum":

Problem 1: Economic Development and Well Being

- * Shortage of businesses and industries paying decent wages and benefits.
- * Taxes.
- Loss of younger work force.
- Affordable child care.
- Outdated education system.

Solutions: Economic Development and Well Being

- Increase State income tax while lowering corporate tax to lowest in Nation.
- Lobby in Harrisburg to implement tax reform.
- * Expand efforts in child care.
- Support small business creation and retention.
- * Eliminate occupational tax and four mill tax on investments.
- * Provide retraining of workers.

Problem 2 - Cooperation/Collaboration

- Lack of clearinghouse for information.
- Lack of communication.
- Lack of resources & interest.
- Cooperation between government and community.
 - Lack of 911 system.

Solutions: Cooperation/Collaboration

- * Computer networking.
- * Education and outreach programs.
- Interaction between agencies.
- * Surcharge for enhanced 911 services.
- Information and referral coordination.
 - On-going "Town Meeting" with elected officials.

Problem 3 - Quality of Life

- Under funding of human service agencies.
- Access to affordable health care.
- Uncontrolled development and poorly planned development.
- Environmental problems.
- * Prevent school teacher strikes.

Solutions: Quality of Life

- Growth management through ordinances and Comprehensive Plan.
- * Determine number in need of health insurance.
- Preserve areas of environmental quality.
- * Laws preventing teacher strikes.
- Purchase development rights on prime agricultural land.
- Use conservancy easements to preserve farmlands.

Problem 4 - Youth Issues

- Breakdown of family.
- Breakdown of morals.
- Lack of family activities.
- Lack of responsibility.
 - Media Influence.

Solutions: Youth Issues

- * Teach morals and values in the school system.
- * Build youth center.
- * Communication.
- Provide more family activities.
- Encourage community to provide facilities/activities and day care.
- Use media to improve education re: drugs, sex, alcohol, etc.

<u> Problem 5 - Environmental Issues</u>

- * Water quality.
- * Open space & farmland preservation.
- * Hazardous waste site selection.
- Recycling and solid waste disposal.

Eliminate junk, trash, and tire piles.

Solutions: Environmental Issues

Increased centralized sewage.

* Consumer education.

Implement new technology.

Mandatory recycling throughout County.

* Stiffer fines.

* Support development of parks.

Support buy recycled programs.

In order to implement these strategies the creation of a "Vision Plan" was suggested. This Vision Plan should be a broad statement of where the County desires to be with regard to each issue area over the next ten (10) and twenty (20) year planning periods. The Long Range Steering Committee should work in coordination with the Comprehensive Plan Advisory Committee, the County Office of Planning and Development and Nassaux-Hemsley, Inc in preparing this Plan.

This Vision Plan should be formatted to include broad topic Policy Goals, which describe what is to be accomplished and the development of County-Wide Objectives for each Policy Goal and its appurtenant County-Wide Objectives, which will be included as part of the appropriate Topic Paper. One Topic Paper will be generated by each Long Steering Committee Sub-Committee for its respective topic area which include:

- 1. Environment;
- 2. Youth (should include community facilities and services);

3. Quality of Life (should include housing);

- 4. Economic Development; and
- 5. Community Cooperation (should include intergovernmental cooperation and transportation).

These Topic Papers should be brought to a public workshop session. These workshops should report consensus on the identified issues and opportunities. Once finalized, these individual Topic Papers should be consolidated into the Columbia County Vision Plan.

11.3 <u>Comprehensive Plan Advisory Committee</u>

Preliminary ideas for goals and objectives have been developed using the input and commentary of the Comprehensive Plan Advisory Committee. Consolidating and summarizing this commentary, a preliminary list of goals and objectives has been developed as follows:

Goal 1: Growth Management

Objectives:

- 1. Establish Urban Growth Boundaries throughout Columbia County.
- 2. Include within Urban Growth Boundaries sufficient land for flexibility of type, density and design of development.
- 3. Direct Community Infrastructure to areas within Urban Growth Boundaries.
- 4. Preserve Prime Agricultural and Environmentally Sensitive Lands.
- 5. Allow for resource conservation and limited growth in rural areas.

6. Discourage Sprawl Development.

Goal 2: Economic Development

Objectives:

- 1. Promote retention and expansion of existing businesses and industries in Columbia County.
- 2. Promote the development of locally owned small businesses.
- 3. Encourage new industries that are desirable to the community.
- 4. Encourage the use of vacant or under-utilized buildings.
- 5. Direct new business and industry to Urban Growth Boundaries to preserve environmentally-sensitive, agricultural, forested and open space lands.
- 6. Streamline permitting process

Goal 3: Provision of Needed Facilities and Services

Objectives:

- 1. Provide all residents with adequate police, fire, and emergency service.
- 2. Insure a safe, reliable and efficient system of utility services.
- 3. Provide technical and professional educational opportunities to meet the diverse educational needs of the community.
- 4. Provide access to a full range of medical facilities and services.

Goal 4: Housing Diversity

Objectives:

- 1. Develop and maintain a supply of decent, permanent housing affordable to persons of all socio-economic origins.
- 2. Maintain quality of life standard.

Goal 5: Community Character

Objectives:

- 1. Encourage the conservation of the rural, small town character of this County.
- 2. Maximize concentration of planned development of urban growth boundaries.
- 3. Promote historic preservation.

Goal 6: Transportation Efficiency

Objectives:

- 1. Identify new transportation facilities and projects that are needed throughout the County.
- 2. Identify congestion problems and possible alternative actions and solutions for U.S. Route 11.

Goal 7: Parks and Recreation

Objectives:

- 1. Provide a diversity of close-to-home recreational opportunities.
- 2. Provide active recreational opportunities for youth and families.
- 3. Coordinate the acquisition of parks and open spaces with other land preservation.

Goal 8: Planning and Coordination

Objectives:

- 1. Coordinate existing Federal, State and local planning programs and regulations.
- 2. Encourage enactment of Land Use Ordinances which implement the policies contained in local, regional and County Comprehensive Plans.
- 3. Promote intercounty and intra-municipal regional planning.

Goal 9: Environmental Protection

Objectives:

- 1. Preserve ecologically sensitive areas.
- 2. Maintain viable role for agriculture and other key open space.
- 3. Encourage enactment of Environmental Quality Standards to guide land use and economic development.

11.4 <u>Municipal Officials Survey</u>

A Municipal Officials Survey was developed by Nassaux-Hemsley, Inc. in cooperation with the Columbia County Comprehensive Plan Advisory Committee and the Columbia County Office of Planning and Development. This survey was distributed to each County municipality by the staff of the County Office of Planning and Development. These survey forms were completed and returned to the County Office of Planning and Development and were given to Nassaux-Hemsley, Inc. for tabulation and analysis.
The response rate to this survey was 75.8%, which equated to 25 of the 33 County municipalities. In addition, survey responses were received from multiple agencies of the Town of Bloomsburg, Briar Creek Borough, Franklin Township, Locust Township, and Mount Pleasant Township. A copy of the Municipal Officials Survey form has been included in Appendix A.

Municipal official survey response results were tabulated into six (6) categories. These categories included:

- Land Use and Environmental Regulation
- Transportation
- Business and Industry
- Housing
- Public Facilities and Services
- Miscellaneous

The results of the survey tabulation and analysis are summarized in the following sections.

11.4.1 Land Use and Environmental Regulation

Nearly all respondents of the survey agreed that recent population growth and land development has been consistent and orderly. Only one person disagreed, and two were ambivalent. When asked if land use planning and ordinances were effective in their municipality, an overwhelming 92% of the respondents indicated yes they were.

When asked "What environmental regulations and land use planning controls would be most applicable to their municipality?" the answers were as follows:

- 4 Zoning Ordinance
- 3 Act 537 Sewage Facilities Plan
- 2 Solid Waste Ordinance
- 1 Wetlands Control
- 1 Floodplain Ordinance
- 1 Subdivision Ordinance
- 1 Agricultural Preservation
- 1 Stormwater Ordinance
- 1 Groundwater Ordinance
- 1 Air Pollution Control
- 1 Noise Pollution Control

The above referenced controls are considered tools used to implement the comprehensive plan, but their political jurisdiction in most cases is limited to municipal boundaries. They may affect and be affected by actions and developments beyond municipal boundaries. None of the controls listed above is a clear favorite. Four (4) out of seventeen (17) or 23% responded with zoning. Many of the municipal comprehensive plans and zoning ordinances have not been reviewed or updated in years and require re-evaluation. There are currently 23 municipalities with their own zoning ordinance, and only four (4) mentioned zoning as most applicable to their local planning efforts.

In order of importance, the next two (2) sets of planning controls revolved around community infrastructure: solid waste and sewage facilities. Both of these controls are concerned with consistency determinations where potential problems are resolved before major resources are committed to any one alternative plan for development of these facilities. They are also coordinated with other municipalities, county and state governments.

A variety of other planning controls or areas of concern were noted. There are thirteen (13) municipalities with their own subdivision and land development ordinance and the remaining twenty (20) municipalities employ the Columbia County Subdivision and Land Development Ordin-Only one (1) municipality identified subdivision ance. and land development regulations as a priority planning control. Even though all municipalities in Columbia County are covered by subdivision and land development regulations, their adequacy should be examined for consistency with procedural changes to the Pennsylvania Municipalities Planning Code and with substantive provisions regarding design and construction standards. need exists for close cooperation between the municipality and the County to administer and enforce subdivision and land development regulations.

Several areas of concern were also itemized in respect to some form of public control over the use of privately owned land. They included controls over wetlands, farmlands, floodplains, stormwater, groundwater, air and noise quality. None of the municipalities brought up public capital investment to shape the land use pattern and related planning controls.

In terms of agricultural preservation, fourteen (14) respondents indicated a preference for maintaining prime soils for agriculture, eight (8) indicated a preference for maintaining only presently farmed land, and six (6) favored expanding the land areas already devoted to agricultural uses.

When asked "Do you favor preservation of lands other than agriculture, such as general open space, recreational land, wildlife habitat, etc.?", all but one response was yes. The reason given for the "no" answer was that State Game Lands cut down on the municipality's tax structure. When asked to indicate the areas of environmental value that should be preserved, the primary answer given was wetlands (8 of 31 responses or 25.8%). Groundwater protection received 5 of 31 responses or 16.1%. Open space, parkland, and prime agricultural land received three responses each or 9.6% of the total responses.

The final question in this category asked "What type(s) of development would you most like to see increase within the municipality?" The top three responses represented over 75% of the total number of responses. These responses included single-family residential (ten (10) responses), commercial-retail (seven (7) responses), and office (five (5) responses).

11.4.2 Transportation

Three (3) survey questions related directly to the municipality's existing transportation system. The first question asked if the existing state and local roadway systems adequately served current traffic levels in and around their municipalities? Nine (9) out of twenty-four (37.5%) of the responses indicated that the existing state roadway system was not adequate within their municipality. Respondents included the Townships of Beaver, Briar Creek, Catawissa, Mt. Pleasant, North Centre, Pine and Scott; the Town of Bloomsburg. Six (6) of twenty-four (25%) indicated that just the existing local roadway system was inadequate These respondents included the Townships of Briar Creek, Catawissa, North Centre, Pine and South Centre; and the Town of Bloomsburg.

When asked to indicate the major transportation problems in and surrounding their municipality, four (4) respondents indicated that U.S. Route 11, and S.R. 487 and 42 were inadequate. Other concerns included speed limits on local and state roads, traffic signal problems, and the lighting system on several roads. Furthermore, when asked what improvements will be necessary within the next 5 to 10 years to accommodate future traffic levels, the responses indicated that: Berwick should receive a bypass, U.S. Route 11 should be widened, S.R. 487 should be widened, and increased transportation improvements funding is needed.

11.4.3 <u>Business and Industry</u>

Each municipality was asked "Which should be the highest priority for Columbia County - recruitment of new business and industry or retention of existing business industry?" Responses to this question were split: eleven (11) preferred recruitment of new business and industry, whereas twelve (12) favored efforts to retain existing industries, and three (3) indicated no preference. With these results in mind, it appears that 'the focus on economic development at the municipal level is not being primarily directed at either existing or new business or industry. On the surface, no consensus was realized relative to the most appropriate means of new or renewed development consistent with the need of business community and economic development opportunities within or adjacent to established neighborhoods. Therefore, a separate Business and Industrial Survey was undertaken by the Columbia County Office of Planning and Development with the assistance of Nassaux-Hemsley, Inc. The second question in this survey asked whether the responding municipalities would support the promotion and recruitment of new business and industry to their municipality, twelve (12) out of twenty responses or 60% were favorable.

11.4.4 Housing

Ten (10) responses or 36% of all respondents believe there to be adequate housing for all persons of all socio-economic backgrounds in their municipality. Interestingly, the next question asked the respondents to indicate what kinds of additional housing would best satisfy the needs of their municipality. A total of 36 responses were collected and only three (3) responses indicated the need for lower cost apartments. The top three answers accounted for 26 of the total or 72% of the responses. The results are as follows:

- 13 One family residential
- 7 Intermediate cost apartments
- 6 Multi-family residential
- 3 Lower cost apartments
- 3 Cluster development (includes mobile home parks)
- 3 No development
- 1 Two family residential

When asked if dilapidated, vacant or abandoned buildings pose a need for housing rehabilitation or demolition in their municipality - nine (9) indicated yes, twelve (12) indicated no, and one (1) had no opinion. Specific examples of this include the Lariat Hotel in Slabtown (Locust Township), several mobile homes, and several burned or partially burned housing units throughout the county.

11.4.5 Public Facilities and Services

Each municipality was asked to evaluate the following services for their respective municipality, the results were as follows:

	Poor	Fair	Good	Excellent
Police protection	2	3	10	6
Fire protection	0	0	13	8
Ambulance Service	0	3	15	3
Access to medical				· · · · · ·
facilities & srvc.	0	6	12	3
Parks and Rec.	3	3	14	1 .
Public Schools	3	. 3	10	. 5
Utility Services				
Water Supply	4	1	10	3
Sanitary Sewage	7	5	4	3
Electric Service	0	2	10	8
Stormwater Mgmt.	5	7	8	0
Telephone Service	0	5	8	7
Trash Service	0	6	11 [.]	3
		1		· · · · · · · · · · · · · · · · · · ·

In general, there is satisfaction with municipal services with the exception of sanitary sewage facilities.

A second question under this heading asked respondents to indicate if adequate technical and professional educational opportunities are available to area residents. Seventeen (17) of twenty-three (23) respondents indicated that adequate technical and professional educational opportunities are available. Four (4) indicated "no" and two (2) had no opinion.

Respondents to this were evenly divided on whether their municipality needs parks or whether this service is adequately provided by regional facilities. Of those who responded that parks and recreation facilities are needed, a majority indicated that there is little funding available to build recreational facilities, no facilities exist in their municipality, and that several existing parks are in very poor condition.

Along similar lines, another question under this category asked respondents to indicate what recreational facilities and programs were needed by their municipality. The three (3) primary responses accounted for nearly 75% of the total. The results were as follows:

- 17 More sponsored youth programs
- 13 Indoor recreation center
 - 11 More sponsored adult programs
 - 5 Additional regional parks
 - 4 More special events
 - 3 Additional neighborhood parks
 - 2 More facilities at existing parks

A further question under this category asked respondents if areas of water quality or quantity problems exist within their municipality. Nine (9) of twenty-one (21) respondents indicated "yes" to this question. The problem areas noted were as follows:

Madison Township -	Jerseytown, quality; Township, quantity
Scott Township -	Shawnee Hills Development and Townsend Road Development
Pine Township -	Legion Hill Area
Orange Township -	Well Contamination in several areas
Stillwater Borough -	Homes built on high locations

Town of Bloomsburg -

Market Street South of Fifth St.

The final question under this category asked respondents to indicate any areas experiencing stormwater drainage problems. Problem areas noted are as follows:

Madison Township -	Multiple areas throughout Township
Beaver Township -	SR 2024 & 2022, 2026, and 339 at Shuman's
Briar Creek Township -	6th, 7th, and 8th Avenues, Dixson and Warren Street
Catawissa Township -	Wonderview
North Centre Township -	McDowell Hill Road
Pine Township -	Abraczinshas Farm Area, Cherry Hollow Area, Peterman Road, Rt 546 - Popular Tree Road

Catawissa Borough - 1st Street

Center and Third St. along Municipal building, Fifth and Everett Streets

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Stillwater Borough -

South McHenry Street

11.4.6 <u>Municipal Cooperation</u>

Benton Borough

The first question asked under this category was with respect to any communication problems between adjacent municipalities involving planning and development which has resulted in disruption of community cohesiveness? The results are as follows:

4 - Yes 16 - No 2 - No opinion

Specific communication problems that were indicated include: the sewage situation with Berwick Borough, Centralia, Mt. Carmel Township, survey of the Columbia County boundary line.

The next question under this category asked respondents to list any additional comments, concerns or suggestions that they believed would increase the quality of life in Columbia County or should be addressed in the Comprehensive Plan Update.

Specific responses to this question included the following:

- <u>Madison Township</u> Agricultural Preservation, emergency communications (911).
- <u>Briar Creek Township</u> Expansion of sewer system, repairing roads, stormwater management.
- <u>Catawissa Township</u> Consistent governmental regulations, better building practices and codes, increased funding for enforcement of existing ordinances and regulations, emergency communications (911).
- <u>North Centre Township</u> Solid waste management and recycling, recreation.

 <u>Pine Township</u> - Development of the Little Fishing Creek Planning Area, growth strategies based on population increases.

11.5 Business and Industrial Survey

Columbia County officials indicated a desire for business/ industrial input into the development of the Comprehensive Plan's Community Goals and Objectives. To obtain this information, business/industrial surveys were mailed to approximately 2,100 businesses and industries throughout the County. These survey forms were completed and returned to the Columbia County Planning Commission and were given to Nassaux-Hemsley, Inc. for tabulation and analysis. A total of 196 surveys were returned which represented a response rate of 9.3%. A copy of the Business and Industrial Survey used is included in Appendix B.

11.5.1 General Information

The first section of this survey requested general information regarding the type of business or industry surveyed, its Standard Industrial Classification Code (SIC) and what product(s) or service(s) were offered.

The majority of operations surveyed, categorized by SIC Code, were service oriented businesses (34); retail sales (26); and auto repair, parts, sales, and service operations (22). The principal products or services offered by these businesses include:

•	Services - financial, cleaning,		
	insurance, land development,		
	funeral real estate, rentals,		
	printing, barber and beauty salons,		
	computer, educational		34
•	Retail sales	-	26
•	Auto repair, parts, sales		
	and service		22
•	Health care		14
•	Manufacturing	-	.13
•	Home and housing supplies	-	12
•	Food and grocery	-	12
•	Construction	-	6
•	Lumber and wood products	-	5
•	Legal services	-	4
•	Veterinary, grooming and Pet supplies		4
•	Non-profit organization	-	3
•	Transportation, trucking, travel, etc	-	3
•	Beverage distributors	-	2
• •	Religious Institutions		2
•	Office furniture and supplies	-	2
•	Recycled products		2
•	Cable TV		1
•	Municipal government services	-	1
•	Nursing home		ī
•	Radio station	-	ī

- Small engineer repair
- Soft drink sales
- Employment services
- Utility

Warehousing

Volunteer Fire Department

11.5.2 <u>Employment and Personnel</u>

Questions 4 through 11 requested employee and personnel information. Interestingly, 154 of 194 or 79% of the respondents indicated that they are very small firms, employing less than 75 full time employees. Further, only 12 indicated that they employ more than 75 full time employees. The results of the survey indicate that a nominal decline in the number of firms employing 0 - 75 full time persons is anticipated. A small number of these full time positions may be converted into part-time positions. Overall the employment patterns indicate a relative stability of the economic sector and reflect the rural nature of Columbia County. These results also indicate the need for business creation and retention strategies.

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In terms of classifying the number of full-time employees, the majority are considered skilled (2,154) and unskilled workers (1,525). The second major classification is clerical (575) followed by management/ administration (523), sales (326), professional (261), technical (224), and other (102). Nearly 57.4% of the work force were indicated as male and 42.6% as female.

A total of nine (9) unions were indicated as currently being active and are as follows:

- Pipe Fillers, Plumbers and Sheet Metal Workers
- Graphics Communication Union Local 732-C
- Lady Esther Undergarment Workers Association
- United Steel Workers of America
- Teamsters
- F.O.P.
- Mid-Eastern Industrial District Council
- United Food and Commercial Workers Local 72
- IBEW-1600

Forty-five (45) firms indicated that they had problems obtaining qualified employees. The primary reasons indicated were:

- Poor clerical skills
- High turnover rate
- Inflexibility on hours
- No prior field experience

Licensed/Registered Nurses are difficult to find Licensed Veterinary Technicians are difficult to find

Interestingly, the survey revealed that a majority of those employed within Columbia County have a very short drive to work. Thus, indicating that a majority of individuals that live in Columbia County work within Columbia County.

The primary benefits provided by employers in Columbia County are health insurance (120), which is followed by major medical (104), life insurance (72), training and education (69), retirement (61), dental (36) and vision (18) and other benefits (18).

It was revealed by the survey that since the end of World War II, nearly 100 firms have been incorporated within the County. The growth rate in the number of firms incorporating has increased from 7 in the 1950's to 42 in the 1980's. To date, the decade of the 1990's has seen 11 firms incorporate.

The majority of the businesses that responded are located within the Town of Bloomsburg (57) and Berwick (52). A variety of other municipalities, counties (Allegheny, Delaware, Luzerne, Monroe, Montour, Northumberland, Union and Lehigh) and states (Kentucky, New Jersey, New York, and West Virginia) were represented.

One hundred and fourteen (114) of these firms responding have been located at their current location for more than ten (10) years. Eighteen (18) firms indicated that they have been located in Columbia County for over fifteen (15) years, thus indicating a general willingness to remain in Columbia County. Nearly 56.5% (or 99 respondents) indicated that they began operation at the their current location. Of those businesses responding, 96% indicated that their current location was either adequate or excellent.

The final question regarding location was asked to ascertain why the business selected its current location. The primary reasons include:

- 1. Found suitable facility (56 responses)
 - reasonable rent or lease
 - suitable land
 - available storefront
 - suitable price
 - existing facility

- 2. Access to markets and consumers (40 responses) - close to Hazleton and Wilkes-Barre
 - exposure
 - close to University
 - central to service territory
- 3. Access to major transportation networks (18 responses)
 - access to I-80
 - major transportation area
- 4. Parking facilities (7 responses)
- 5. Opportunity for expansion (7 responses)
 additional property for expansion
- 6. Limited competition (2 responses)
 limited competition in service area
- 7. Suitable climate (1 response) - tomato grower
- 8. Sufficient resources (1 response) - abundant raw materials

Regarding business plans for the next two (2) to three (3) years, 92 firms indicated that no change would occur, 48 indicated that they will be expanding their product lines or services, 42 indicated that an investment in new machinery or equipment would occur, and 31 indicated an expansion of existing facilities would occur. With these factors in mind, the economic outlook appears favorable in Columbia County.

11.5.3 Markets, Sales and Supplies

Nearly 139 of 196 respondents or 70.9% indicated that 76 to 100% of their business occurs solely within Columbia County. In terms of sales for 1992:

42 indicated sales of less than \$250,000 31 indicated sales between \$250,000 and \$500,000 27 indicated sales between \$500,000 and \$1,000,000 25 indicated sales between \$1,000,000 and \$5,000,000 13 indicated sales over \$10,000,000 7 indicated sales between \$5,000,000 and \$10,000,000 51 chose not to respond When asked "How did 1992 and 1991 sales compare?" 42 or 23.7% of the respondents indicated that 1992 sales were less than 1991 sales, 63 or 35.6% indicated that sales remained steady, and 72 or 40.7% indicated that 1992 sales were greater than 1991 sales. Thus, indicating that 76.3% of the firms surveyed had a relatively stable or favorable economic year.

Based on the results of the survey, a majority of operations within Columbia County receive their supplies from sources within the County. Thus indicating the perpensity for suppliers to locate in close proximity to the growth-oriented business of Columbia County. From the results of this survey, it appears as though an inverse relationship exists between the percentage of principal suppliers and distance (mileage away).

TABLE 11-A

	Very Important	Somewhat Important	Not Important
A. Labor Costs	123	38	16 .
B. Highly Skilled Workers	. 74 .	70	34
C. Education & Training	62	78	39
D. Marketing	90	53	. 33
B. Research & Development	33	64	74
F. Access to Customers	133	31	. 1,7
G. Access to Suppliers	72	- 51	46
H. Capital Availability	88	6D ·	28
I. Access to Capital	82	62	. 27
J. Technology	55	79	42
K. Quality of Life	114	55	. 11
L. Energy Costs	107	61	13
M. Energy Reliability	110	52	14
N. Taxes & Regulations	149	27	2 5
O. Pro-Business Attitude	128	39	6
P-1 Truck	117	12	31
P-2 Rail	7	20	115
P-3 Air	12	30	100
Q-1 Electric	154	20	. 3
Q-2 Gas	77	27	45
Q-3 Water/Sever	107	37	20
Q-4 Steam	10	10	114
Q-5 Telecommunications	100	36	18
R. Public Safety	104	37	11

BUSINESS OPERATION FACTORS

SOURCE: Results of Columbia County Business and Industrial Survey.

11.5.4 <u>Business Factors</u>

Each business operation was asked to rank business operation factors affecting their firm in order of importance. Results of those responding are on Table 11-A.

A second question asked of firms was to list the three (3) most important factors relating to operating a business. The three (3) most important factors identified were:

- 1. Labor cost;
- 2. Taxes and regulations; and
- 3. Access to customers.

Other more notable business factors include difficulty in obtaining skilled workers, quality of life, energy costs, and a pro-business attitude.

11.5.5 Facilities, Utilities and Services

Questions 29 through 35 were designed to ascertain information regarding the firm's facilities and their view of public services. The first question asked "How old is your building?". The overwhelming response was between 26 and 50 years old (52 respondents or 31.3%), which was followed by firms which utilized buildings between 11 and 25 years old (38 responses or 22.9%), and buildings that were between 0 and 10 years old (35 respondents or 21.1%). The remaining five categories, 51 to 75, 76 to 100, 101 to 125, 128 to 150, and 150 years and over, account for a total of only 41 responses or 24.7%.

When asked "How much floor space do you occupy?", the responses indicate a large number of small firms. The majority (53.8%) of the respondents indicated a building size of less than 5,000 square feet. The most prevalent answer being buildings 1,000 - 1,099 square feet (29 respondents or 20.2%). Sixty-six respondents indicated facilities of over 5,000 square feet, with the most prevalent answer being buildings between 10,000 and 19,999 square feet (20 respondents or 14.0%). The next question asked if the existing space was adequate. Onehundred and thirty-nine (139) respondents (77.7%) indicated that their existing space was adequate and the remaining 22.3% indicated no. Those businesses that answered no were then asked to explain their answer, many manufacturers indicated insufficient warehouse and storage space, while many retail stores indicated insufficient showroom space. Several other businesses indicated that the problem caused by insufficient space

was being taken care of through facility expansions. Question #32 asked if the facility's layout was efficient. Interestingly, 158 or 90% of the respondents indicated that yes, their facility's layout was efficient, while only 18 indicated no.

The next question asked if the firm rents or leases will the lease be renewed. Twenty-six (26) respondents indicated that they would renew their existing lease while five (5) indicated that they would not renew their current lease.

Regarding local services, the first question asked was that firms evaluate the following services for the municipalities they were located in. The results are indicated on Table 11-B:

TABLE 11-B

		Very Good	Satisfactory	Unsatisfactory
λ.	Police Protection	109	71	5
в.	Fire Protection	119	66	1 .
c.	Sewage/Sanitation	77	76	22
D.	Street Maintenance	65	100 .	16
в.	Garbage Removal	94	76	3
P .	Zoning, Land Use	47	111	20
G.	Water	79	83	13
Ξ.	Parking	58	89	32

LOCAL SERVICES RATING

SOURCE: Results of the Columbia County Business and Industrial Survey.

Overall, a majority of businesses felt adequately served by public facilities. The three (3) most unsatisfactory local services are: Parking, sewage/sanitation; and zoning/land use.

Question 35 asked if the business has had any major problems with specific public services. Fourteen (14) respondents indicated that they had experienced problems with public services and when asked to explain their answer, the responses indicated dissatisfaction with the Department of Environmental Resources, limited police coverage, water service, sanitary sewer service, lack of parking, and zoning ordinances. The following question asked if any local government regulations, laws or procedures have made it more difficult for their firm to operate profitable. Fifty (50) respondents indicated yes. The overwhelming response was taxes.

11.5.6 <u>Miscellaneous</u>

Several questions were asked regarding assistance that could be offered by Columbia County and if any firms are already participating in any state, federal or industry consortiums. Forty-six (46) firms indicated a desire to participate in a state or federal assistance program. In comparison, fifty-nine (59) firms indicated an awareness of state and federal assistance programs and seventy-four (74) firms indicated a desire for additional information regarding such programs. Seventeen (17) firms indicated that they are currently participating in an industry consortium while an additional thirty-four (34) indicated an interest in participating in a consortium.

One question asked if the firm utilized recyclable products as a source of raw material or for any other purpose. It appears as though many of the businesses are environmentally conscious. Sixty-three (63) or 34.4% of the respondents indicated yes.

Questions 37 and 38 were open-ended questions asking the business to indicate any remarks that they feel should be addressed and those that they would like to see addressed in the Comprehensive Plan. The results are as follows:

<u>Question #37</u>

- Prohibit various uses junk yards
- Quality flood control management
- Cleaning the Susquehanna River
- A review of existing municipal zoning ordinances
- Indicate number of welfare recipients and dependency on welfare
- Water/sewer facilities
- Traffic congestion
- Emergency communications
- Education reform
- Roadway improvements
- Solid waste disposal
- Prison facilities
- Downtown parking
- Cooperation of municipal governments
- Encourage future growth of business sector
- Agricultural preservation
- Access to medical facilities

Workman's Compensation reform
 Negative newspaper reporting

<u>Questions #38</u> - Information to be included or addressed in the plan that could be of benefit to your company.

- Plans for purchase of future development rights
- Qualified people on zoning boards
- Cut welfare relief
- Expansion of existing water/sewer facilities
- Improvement of existing traffic patterns
- Utilize the outputs of local businesses more often Growth in Bloomsburg depends on land use for waste disposal
- Less government regulation
- Support of Welfare and Workman's Compensation reform
- Roadway improvements
- Encourage lending from banks
- Improve public awareness of businesses
- Increase environmental awareness
- Prevent monopolies in banks
- Catawissa Creek flood control
- Health insurance for small businesses
- Control DER
- More ordinances for cleanliness in Bloomsburg

11.6 Summary of Findings and Conclusions

The Columbia County Commissioners, along with the Long Range Steering Committee and the Comprehensive Plan Advisory Committee, identified key issues impacting Columbia County. The issues included the environment, local youth, quality of life, economic well being, and intergovernmental cooperation. These key issues were then molded and formed the basis for a statement of Community Goals and Objectives.

This statement of Community Goals and Objectives was formulated to enable Columbia County and municipal officials to develop policies and make decisions with regard to future land use, community facilities and infrastructure in a consistant and impartial manner. Preliminary Goals and Objectives were identified and includes goals such as: growth management, economic development, the provision of needed community facilities and services, housing diversity, community character, transportation efficiency, parks and recreation, planning and coordination and environmental protection.

Two (2) surveys, a Municipal Officials and a Business and Industry Survey, were developed by Nassuax-Hemsley, Inc., in cooperation with the Columbia County Comprehensive Plan Advisory Committee and the Columbia County Office of Planning and Development. These surveys were than distributed to each municipality within the County and to approximately 2,000 business throughout the County.

The results of the municipal survey indicated that a variety of planning and land use controls are utilized to guide growth. Overall the preservation of environmental quality was the goal of these land use controls.

The general perception of the transportation system within Columbia County is that it adequately meets the needs of the County. Only three roadways were identified as inadequate -U.S. Route 11 and State Routes 487 and 42. Another concern was the lack of adequate funding for transportation projects.

In terms of housing only 36 percent of all respondents believe there to be adequate housing for persons of all socio-economic backgrounds. Many respondents indicated a need for one and multi-family housing units and intermediate cost apartments.

Overall public facilities and services rated very high. The exceptions to this were sanitary sewer services and water quality. Further, several areas experiencing storm water drainage problems were identified.

The results of the Business and Industrial Survey indicated that the service/retail sector dominates Columbia County's economy. Nearly 30 percent of all respondents were classified as service or retail business.

In terms of employment nearly 80 percent of all respondents indicate that they are relatively small businesses employing less than 75 persons. Further only twelve firms indicated that they employ over 75 full-time employees. The majority of the indicated work force are considered skilled and unskilled workers. The primary benefits provided to these employees consist of health insurance, major medical and life insurance.

The majority of the business that responded are located within the Town of Bloomsburg (29%) and Berwick (27%). Further, many of these firms, nearly 60 percent, have been located at their existing location for more that ten (10) years.

Illustrating the fact that many of Columbia County business are relatively small, approximately 51 percent of all business surveyed revealed that their annual sales were less than \$1,000,000. However, when asked how did 1991 sales compare to 1992 nearly 70 percent indicated that their sales increased or remained steady.

Further illustrating the size of Columbia County businesses nearly 54 percent of all businesses indicated that their building size is less than 5,000 sq. ft. However, when asked if this space is adequate 22.3 percent said no, indicating a desire to expand facilities. In terms of local utilities and services a majority of the businesses felt adequately served. The three most unsatisfactory services or utilities cited are parking, sewage facilities, and land use regulations.

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BIBLIOGRAPHY

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BIBLIOGRAPHY

- 1. Fox Hollow Associates. <u>Comprehensive Plan Beaver Township</u>. Pennsylvania; 1987.
- Clifton E. Rodgers and Associates. <u>Comprehensive Plan-Town of</u> <u>Bloomsburg</u>. Pennsylvania; 1974.
- 3. Fox Hollow Associates. <u>Briar Creek Borough Mini Plan</u>. Pennsylvania; 1987.
- 4. Fox Hollow Associates. <u>Comprehensive Plan-Catawissa Township</u>. Pennsylvania; 1985.
- 5. L. Robert Kimball. <u>Comprehensive Development Plan for Briar</u> <u>Creek Township</u>. Pennsylvania; 1975.
- 6. Mullin and Lonergan Associates, Inc. <u>Catawissa Comprehensive</u> <u>Plan</u>. Philadelphia, Pennsylvania; 1974
- 7. Franklin Township Board of Supervisors. <u>Comprehensive Plan</u> <u>Update-Cleveland Township</u>. Pennsylvania; 1993.
- 8. Local Government Research Corporation. <u>Cleveland Township</u> <u>Comprehensive Development Plan</u>. State College, Pennsylvania; 1974.
- 9. Buchart-Horn Consulting Engineers and Planners. <u>Comprehensive</u> <u>Plan for Fishing Creek</u>. York, Pennsylvania; 1974.
- Local Government Research Corporation. <u>Franklin Township-</u> <u>Comprehensive Development Plan</u>. State College, Pennsylvania; 1974.
- 11. Franklin Township Board of Supervisors. <u>Comprehensive Plan</u> <u>Update for Franklin Township</u>. Pennsylvania; 1993.
- 12. Buchart-Horn Consulting Engineers and Planners. <u>Hemlock</u> <u>Township Comprehensive Plan</u>. Pennsylvania; 1974.
- 13. Fox Hollow Associates. <u>Comprehensive Development Plan for</u> <u>Greenwood Township</u>. Pennsylvania; 1974.
- 14. Fox Hollow Associates. Locust Township Comprehensive Plan. Pennsylvania; 1990.
- 15. Buchart-Horn Consulting Engineers and Planners. <u>Mifflin</u> <u>Township Comprehensive Plan</u>. York, Pennsylvania; 1971.
- 16. Planning Commission at Montour Township. <u>Montour Township</u> <u>Comprehensive Plan</u>. Mountoursville, Pennsylvania; 1990.

- 17. Local Government Research Corporation. <u>Comprehensive</u> <u>Development Plan for North Centre Township</u>. State College, Pennsylvania; 1973.
- 18. Pine Township Planning Commission. <u>Comprehensive Plan for</u> <u>Pine Township</u>. Pennsylvania; 1991.
- 19. Fox Hollow Associates. <u>Comprehensive Plan Roaring Creek</u> <u>Township</u>. Pennsylvania; 1989.
- 20. Columbia County Commissioners, Penn State Cooperate Extension. <u>Summary of the Needs Assessment Forum for Columbia County</u>. Pennsylvania; 1992.
- 21. The Pennsylvania State Data Center Institute of State and Regional Affairs. <u>1990 General Population and Housing</u> <u>Characteristics: Pennsylvania</u>, Middleton, Pennsylvania; 1990.
- 22. DeChiara, Joseph and Lee Koppelman. <u>Planning Design Criteria</u>. New York, Van Norstrand Reinhold Company; 1969.
- 23. Redevelopment Authority of the County of Columbia. <u>Fair</u> <u>Housing Analysis for the County of Columbia</u>. Pennsylvania; 1991.
- 24. Clifton E. Rodgers and Associates, Consultants. <u>Columbia</u> <u>County Implementation Capabilities and Initial Housing</u> <u>Element</u>. Pennsylvania; 1969.
- 25. Clifton E. Rodgers and Associates, Consultants. <u>Columbia</u> <u>County Pennsylvania Community Facilities - Public Protection,</u> <u>Medical and Cultural</u>. Pennsylvania; 1969.
- 26. Clifton E. Rodgers and Associates, Consultants. <u>Columbia</u> <u>County Pennsylvania Community Facilities - County Buildings,</u> <u>Schools, and Recreation</u>. Pennsylvania; 1968.
- 27. Clifton E. Rodgers and Associates, Consultants. <u>Columbia</u> <u>County Pennsylvania Comprehensive Plan Summary</u>. Pennsylvania; 1970.
- 28. Columbia County Planning Commission. <u>Columbia County</u> <u>Subdivision and Land Development Ordinance</u>. Pennsylvania; 1991.
- 29. Department of Environmental Resources. <u>Commonwealth of</u> <u>Pennsylvania - Pennsylvania Code</u>. 1992.
- 30. Greenburg, Kruecheberg, and Michaelson. <u>Local Population and</u> <u>Employment Projection Techniques</u>. New Jersey, Center for Urban Policy Research. 1978.

Page 2 of 4

- 31. Nassaux-Hemsley, Incorporated. <u>Quincy Township, Franklin</u> <u>County. Pennsylvania</u>, Pennsylvania; 1993.
- 32. CET Engineering Services, Inc.. <u>Act 537 Plan for the Borough</u> of <u>McConnellsburg</u>, Pennsylvania; 1992.
- 33. National Recreation and Park Association. <u>Recreation, Park</u> <u>and Open Space Standards and Guidelines</u>. Alexander, Virginia, 1983.
- 34. The Bloomsburg Hospital. Guide to Service, 1993.
- 35. Columbia County Office of Planning and Development, SEDA-COG and Nassaux-Hemsley, Inc., <u>Columbia County Waste Management</u> <u>Plan</u>. 1990.
- 36. Baltimore District Corps of Engineers. <u>Flood Plain</u> <u>Information Bloomsburg Columbia County, Pennsylvania,</u> <u>Susquehanna River</u>. 1974.
- 37. U.S. Department of Commerce, Bureau of Census. <u>PL 94-171</u> <u>Report: Pennsylvania</u>. February, 1991.
- 38. Commonwealth of Pennsylvania Department of Environmental Resources. <u>Groundwater Resources of the Lower Susquehanna</u> <u>River Basin, Pennsylvania</u>, 1984.
- 39. Commonwealth of Pennsylvania Department of Environmental Resources. <u>Geology and Mineral Resources of Bloomsburg and</u> <u>Mifflinville Quadrangle and part of the Catawissa Quadrangle,</u> <u>Columbia County</u>, Pennsylvania, 1981.
- 40. United States Department of Agriculture. <u>Soil Survey of</u> <u>Columbia County, Pennsylvania</u>, 1967.
- 41. Pennsylvania Power and Light Company. <u>Susquehanna Region</u> <u>Development Guide</u>, 1972.
- 42. Lohman, Stanley W. <u>Groundwater in Northeastern Pennsylvania</u>. Pennsylvania, 1957.
- 43. Institute of State and Regional Affairs at Penn State, Harrisburg. <u>Pennsylvania Abstract Fact Book</u>, 1992.
- 44. Columbia County Planning Commission. <u>Columbia County</u> <u>Pennsylvania Development Plans</u>. Pennsylvania, 1970.
- 45. Pennsylvania Bureau of Water Supply and Community Health. Columbia County Annual Water Supply Report, 1992.
- 46. Pennsylvania Department of Environmental Resources. <u>Municipal</u> <u>Wasteload Management Reports</u>, 1992.

- 47. Pennsylvania Department of Education. <u>Public Schools Summary</u> of Enrollment, 1993.
- 48. Pennsylvania Department of Health. <u>Nursing Home Directory</u>, 1992.
- 49. Pennsylvania Emergency Management Agency. <u>Columbia County Fire</u> <u>Department</u>, 1991.
- 50. Central Susquehanna Valley Board of Realators. <u>Multiple</u> <u>Listing Service</u>, 1991.
- 51. Pennsylvania Chamber of Business and Industry. <u>Road to</u> <u>Renaissance VIII</u>, 1993.
- 52. Columbia County Office of Planning and Development. <u>Municipal</u> <u>Recycling Reports</u>, 1992.

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APPENDICES

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APPENDICES

APPENDIX A Municipal Officials Survey

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MUNICIPAL OFFICIALS SURVEY

1. Has recent population growth and land development in your municipality been consistent and orderly?

🛛 Yes 🗌 No 🗍 No opinion

Comments:

2. Are land use planning and ordinances effective in your municipality?

······

•

. .

🛛 Yes 🗍 No 🗍 No opinion

· ·

Comments: _____

1.10

3. Does the existing state roadway system serve current traffic levels in and around your municipality adequately?

□ Yes □ No □ No opinion

Does the existing local roadway system serve current traffic levels in and around your municipality adequately?

I Yes I No I No opinion

Please list the major transportation problems in and surrounding your municipality.

5.

What improvements will be needed to accommodate future traffic levels in the next 5-10 years?

Effor	rts toward retention reference	of existing but	siness/industry
No pi	ents:	•	
U UUUU		· · · · · · · · · · · · · · · · · · ·	
- ·			**************************************
			•
Would you	support the promot	ion and recruit	ment of new busi-
nesses and	l industries to your	municipality?	
	es 🗌 No	🗆 No oj	pinion
Comments:			· · · · · · · · · · · · · · · · · · ·
			•
Evaluate i	the following servic	es for your mun:	icipality:
(1) Poor	(2) Fair	(3) Good	(4) Excellent
Polic	ce protection	Parks	s and Recreation
Fire	protection	Publ:	LC Schools
Ambu	lance Service		
Acces	ss to medical facili	ties and service	25
Utility Se	ervices		
Wate:	c Supply		
Sani	tary Sewage		· ·
Elec	tric Service		
Stor	nwater Management		•
Tele	onone Service	·	
Trasi	n Collection Service	· .	
Commenter	an An Anna an Anna an Anna an Anna an Anna an Anna Anna an Anna an		
commence.	<u></u>		
	<u></u>		······································
• • •			
	· · · · · · · · · · · · · · · · · · ·		
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	**************************************	<u> </u>	
		· · · · · · · · · · · · · · · · · · ·	

9. Are adequate technical and professional educational opportunities available to your municipality?

🛛 Yes 🗌 No 🗍 No opinion

If "no", please specify: _____

Comments: _

10. Is there enough affordable housing for persons of all socioeconomic backgrounds in the your municipality?

🛛 Yes 🗌 No 🗇 No opinion

If "no", please specify: _____ Comments:

11. Do dilapidated, vacant or abandoned buildings pose a need for housing rehabilitation or demolition in your municipality?

LI ·	Yes	Ц	NO	·			
If yes,	specify what	area	s:		 		
Comments	.						
			•	• •			

12. What kinds of additional housing would best satisfy the needs of your municipality? (Check as many categories as necessary).

- ____ One family residential
- ____ Two family residential
- ____ Multi-family residential
 - (3 or more units per building)
- ____ Intermediate cost apartments
- ____ Lower cost apartments
- ____ Cluster development (includes mobile home parks and other higher density housing)
 - _ Other: _____

Comments:

··

13. Should protection of the historical small town character of the county from sprawling urban development be a top priority? 🛛 No 🛛 Yes 🛛 No opinion Comments: 14. List what areas of environmental value should be preserved in your municipality. 15. List what environmental regulations and land use planning controls would be most applicable to your municipality. ·____ 16. Do you favor: Maintaining prime soils for agriculture. Maintaining only presently farmed land. Expanding land area already devoted to agriculture. Other alternative practices in agricultural preservation, (please specify): ____ None of the above. 17. Do you favor preservation of lands other than agriculture, such as general open space, recreational, wildlife habitat, etc. 🛛 No 👘 🔲 No opinion 🛛 Yes Comments: 18. Are there adequate recreational facilities and programs for families and/or youth? 🛛 No 🛛 🖓 No opinion 🛛 Yes Comments: Please list all known recreational facilities in your municipality:

- 19. Please check three (3) of the following recreational facilities and programs that you feel are most needed by your municipality:
 - ____ Indoor recreation center
 - ____ Additional neighborhood parks
 - ____ Additional regional parks
 - ____ More facilities at existing parks
 - ____ More sponsored youth programs
 - ____ More sponsored adult programs
 - ____ More special events

____ Other (please list) ____

Comments:

20. Please list any areas which are currently experiencing stormwater drainage problems in your municipality.

1 3

- 21. Are there any known areas of water quality or quantity problems within your municipality?
 - 🛛 Yes 🗌 No
 - If yes, please specify the areas and problems: _____

22. What type(s) of development would you most like to see increase within the municipality?

- ____ commercial-retail _____ single-family residential
- ____ commercial-wholesale ____ multi-family residential

____ other _____

- ____ office
- ____ industrial

Comments:

23. Have there been communication problems between adjacent municipalities involving planning and development which has resulted in disruption of community cohesiveness?

 Image: Yes
 Image: No
 Image: No

24. Please check the three (3) most important planning management practices to your municipality.

	New or improved infrastructure in areas of growth
	Establishment of zoning ordinances and boundaries
	Preservation or prime agricultural lands
· ·,	Resource conservation
	Preservation of environmentally sensitive areas
	Discourage sprawling development
	Planning coordination between federal, state and local government

Comments:

25. Please list any additional comments, concerns or suggestions that you feel would increase the quality of life in Columbia County or should be addressed in the Comprehensive Plan Update.

•_____

Your Name _____

			_	
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1	ᆂ	-	┸	е.

Phone Number ____

_____ Municipality _____

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APPENDIX B

Business and Industrial Leaders Survey

BUSINESS AND INDUSTRIAL SURVEY

Chief	f Executive	Officer:		<u></u>	
Addre	ess:	• •	-		
			City	State	Zip
Phone	e:		<u>. </u>		
FAY.	· · ·				· · ·
• .					
PART	A: BACKGRO	UND			
1.	Type of Bus	iness activity	(check one):		
	а.	Manufacturing/	assembly	· · · · · · · · · · · · · · · · · · ·	
	b	Sales, materia	ls, supplies, ed	luipment	
ан 1 1	c	Warehousing	· · · ·	••	
	d. (Distribution			
	e	Wholesaling		· · ·	
	f	Trucking/shipp	ping	•	
	g	Construction s	ervices (specify	7)	
	i.	Other (specify	specify)		
2.	What is/are	your Standard	Industrial Clas	sification Co	des?
	•				
	(Refer to y	our Federal Ta	x Return for thi	ls information	ı)
					x
3.	What are yo	our principal p	products or servi	ces?	
				······	
A)	Number of a			`	
± •	MUNDET OI E	mproyees:			
	Full-Time _		Part-time _		
	•				•
		_	_		
5.	Number of e	employees 12 mo	onths ago?		•

()

6. Number of employees you expect to have in 3 years?

Full-Time _____ Part-time

7. Classification of full-time employees (please place employees in one category only:

<u>Category</u>	Number of Employe <u>Male</u> <u>Fema</u>	es Total <u>le Employees</u>
Professional		
Technical	, 	
Management & Administrative		
Clerical		
Sales		· · · ·
Skilled Workers		
Unskilled Workers		·····
Other (specify):	•	
	······	
TOTAL		

8. What percentage of your workforce is unionized? ______
Which Union(s)? ______

9. Do you have any problems obtaining qualified employees:

If yes, explain: _____

Yes

10. Approximately what percentage of your employees live within:

a. ____ 1 - 3 miles from the workplace

____ No _____

- b. _____ 3 5 miles from the workplace
- c. ____ 5 10 miles from the workplace

d. _____ more than 10 miles from the workplace

11. What benefits do you offer your employees?

			• •			
	•	Retirement	. · · ·			
	 -	Life Insurance		·		
		Training/Educat	ion	·	•	×
		Health Insuranc	:e:	Major Medica	al	•
				Dental		
			· · · · · · · · · · · · · · · · · · ·	Vision		
				Other		
PART	B: BUSIN	ESS LOCATION			· · · · · · · · · · · · · · · · · · ·	in in
12	What year was your company incorporated?					
12.	Milac year	was your company	ly incorpora			
	Location	Municipality		County		+ + + -
	• . •	Municipaticy		county	. 3	Lale
, ,		years	__			
14.	Where were you located prior to being at your current address?					
	Began at your current location					
	Other location (specify)					
15.	Is there a headquarters, subsidiary or branch location?					
	Yes No					
	•	· · · · · · · · ·				
16.	What were	the major reaso	ns for choos	sing your cur	rent loc	ation?
-	· ·	<u></u>				
17.	Are you pleased with this location as a place to do business?					
				Comments	3	
	77					

Yes, an excellent location _____ Yes, an adequate location _____ No, not a good location _____

Page 3 of 8
18.	What are	e your business plans for the next 2 -	3 years?
	a.	No change in operation	-
	b	Change mix of goods and services	
	с.	Expand product lines	
	d.	Expand facility	
	e	Get out of the business	
	f.	Belocation	
	<u>д</u> ,	Tryestments in machinery and equir	ment
	у b	Other please specify.	Alleri C
	····	Other, preuse specify	<u> </u>
PART		JG BUSTNESS	· .
			·
19.	Busines	ownership structure:	
		Sole proprietorship	Partnorship
	······	De Business - Stock	Foreign Buginess
	*	Pa Business - Non-Stock	Pa Profossional
	, ⁴	Pa Business - Cooperative	ra riviessionai
	J	Pa Business - Cooperative	Other (mariful)
	· 4	Pa Business - Management	Other (specily)
		Pa Business - Statutory Close	· · · · · · · · · · · · · · · · · · ·
20.		In the Columbia County Area (within 100 Dusiness)	miles of your
	.]	Between 100 and 250 miles of your busin	ess
	· · · ·	Within 250 miles of your business	
	· · · ·	Nithin 500 miles of your business	
		National market	
		International Market:	
al a parter		a. Import	
	I		
21.	What cat	regory indicates your total sales for 1	992?
	t	Jnder \$250,000	
	I	Between \$250,000 and \$500,000	•
	I	Between \$500,000 and \$1,000,000	
	I	Between \$1,000,000 and \$5,000,000	
	I	Between \$5,000,000 and \$10,000,000	
	(Över \$10,000,000	
	· 7	Vill not disclose	

22. How did 1992's sales compare with 1991's?

	Less
<u></u>	Same
	More

23. How do you rate the importance of the following factors in operating your business (please check options):

•		Very Important	Somewhat Important	Not Important
a.	Labor costs			
b.	Availability of highly skilled workers			
C .	Education and training opportunities			
d.	Marketing			
e.	Research and Development			
f.	Access to Customers			
g.	Access to Suppliers			
h.	Capital Availability			>
i.	Access to Capital			
j.	Technology			
k.	Quality of Life			
1.	Energy Costs		·	
m.	Energy Reliability			
n.	Taxes and Regulations		· · · · · · · · · · · · · · · · · · ·	
0.	Pro-Business Attitude			

	1mpol cune	Important	Important
p. Transportation Used:			
1. Truck			
2. Rail			
3. Air			· · · ·
q. Utilities Used:			
1. Electric		\ \	
2. Gas			
3. Water/Sewer			
4. Steam		· · ·	
5. Telecommunications			
r. Public Safety			
1 3	_ 2	· .	
25. What percentage of your pri	incipal suppli	es are:	· ·
In the Columbia County	y area.		
100 to 250 miles away		· ·	
Over 500 miles away	· · · · · · · · · · · · · · · · · · ·		
26. Have you ever participated programs:	in any state	or federal	assistance
Would you like to?	Yes	<u></u>	No
27. Are you currently participa	ating in any i	ndustry con	sortiums?
Yes	N	0	
			27 -

Page	б	of	8
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28.	Does your	company	use any	recycled	products	as a	a source	of	raw
	material (or for an	y other	use?	· · ·		·		

Yes No PART D: BUSINESS FACILITY 29. How old is your building? _ years 30. How much floor space do you occupy? ____ square feet Is this amount of space adequate? 31. Yes No If no, explain: Is the facility's layout efficient for your operation? 32. Yes No If no, explain: _____ 33. If you lease/rent: When does your current lease expire? _ a. b. Are you planning to renew your lease when it expires? No Yes If no, explain: _____ PART E: LOCAL SERVICES 34. Please rate the following local services: a. Police Protection

b. Fire Protection
c. Sewage/Sanitation
d. Street Maintenance
e. Garbage Removal
f. Zoning, Land use
g. Water
h. Parking

Very Good	Satisfactory	Unsatisfactory
<		
·		
	·	
	·	

35. Have you had any major problems with specific public services?

Yes No If yes, explain:

36. Have any local government regulations, laws or procedures made it more difficult for your to operate your business profitably?

Yes ____ No If yes, explain:

PART F: MISCELLANEOUS

Έ.

37. Indicate any remarks you feel that should be addressed in the Columbia County Comprehensive Plan Update:

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the designed